An Address
ON
CONTINUOUS LOCAL INFECTION.

Delivered before the Bradford Medico-Chirurgical Society on Oct. 13th, 1903,

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MR. PRESIDENT AND GENTLEMEN,—It is often borne in upon him who has himself mounted the hill with his fellows and like them begun the downward journey that many of the diseases of middle and later life are due to the absorption of small, it may be minimal, doses of poisons. He will be sure to have a friend of temperate and domestic habits who daily and without thought divides a bottle of champagne at dinner with his wife and at the age of 45 or 50 has a liver that reaches down to his umbilicus and is shocked to hear that he is the subject of alcoholic poisoning. Or it may be that he is the hungry dyspeptic who suffers not so much from the nature of the food which he swallows, although in this respect it is to be feared he is often far from judicious, but rather from the deleterious products which his imperfect digestion manufactures out of the materials which are for the eupeptic not only harmless but nutritious. Is it possible to doubt that many of the degenerative changes of middle and advanced life are due to this cause, just as they are to the poisons circulating in the blood of those who suffer from such definite morbid states as Bright's disease and diabetes?

It is not, however, to such well-recognised forms of chronic poisoning that I wish to draw your attention but to two or three which though common enough have not perhaps received the attention which they deserve. And I naturally turn first to the most fashionable disease of the present day—appendicitis. Probably all of us have been surprised at the amount of good which some patients experience from the removal of appendices which are apparently not very seriously diseased, say, for example, those in which the proximal end is contracted without being quite closed and the distal end is dilated. I found it difficult to give a rational explanation of what appears to be a fact, that such patients are not only relieved from the recurrent attacks of peritonitis, or the easily comprehensible chronic constipation which is so common, but from other general symptoms which are apparently unconnected with the local trouble; and that they often put on flesh and regain a condition of health to which for years they have been strangers.

The key to the situation appeared to be supplied by a case in which I was associated with my colleague Dr. Sidney Martin who has published it in the Transactions of the Royal Medical and Chirurgical Society, vol. lxxxiv., p. 197. A man, aged 50 years, had suffered more or less for eight weeks from intestinal symptoms which started on his way back from a fishing expedition in Norway in the autumn of 1899. There was no indigestion of food but there was gradual loss of appetite with final complete anorexia. There were a bad taste in the mouth and a dry tongue, with a deficient secretion of saliva. The motions, although not very frequent, were never solid and became more and more offensive and very offensive flatus was also passed. Vomiting occurred only once as a result of cough in the morning. There was never any blood or slime in the motions. The temperature during the first week he was under observation was not febrile, during the second week it rose to 99·8°, 100°, and 100·8° F., and in the third week there was a similar slight tendency to rise. He was pale, cachectic, and much emaciated. The muscles were flabby and the wasting was continuous, so that he lost 11 pounds in 15 days, and in spite of treatment in bed, careful dieting, intestinal antiseptics, and douching of the colon with boric acid solution he seemed to be passing into a desperate condition. There was no distension of the abdomen and no tumour could be felt except something in the neighbourhood of the right kidney which it was thought might be no more than this organ. The lymphatic glands throughout the body were somewhat enlarged, the most marked enlargement being of those in the right groin. He had the appearance of one suffering from malignant disease and I was asked to see if this doubtful lump in the hypochondriac region was or was not a carcinoma of the ascending colon. It turned out to be the right kidney as we had partly anticipated, but on exploring the surrounding parts the cæcum appeared to be thickened and an elongated and distended appendix, the presence of which we had, I think, none of us suspected, was pulled out into the wound and removed. Its proximal end was narrow but patent, the walls were enormously thickened except for an inch at the proximal extremity where there were two small erosions, and the contents consisted of horribly offensive liquid matter with a few fæcal concretions. Here was then presumably, as Dr. Martin suggests in his paper, the real *fons et origo mali*—an automatic syringe squirting into the cæcum hour by hour and minute by minute not only the noxious products that the micro-organisms produce but the micro-organisms themselves. I feel sure that the explanation is the right one, for although the recovery was slow it has been complete. There were a gradual disappearance of the symptoms and a gradual recovery of strength. Ten months after the operation he had attained his usual weight and now, more than three years afterwards, he is fat and well. The enlarged glands disappeared rapidly after the operation; and it is interesting to note that the gland in the right groin was obviously infected from a mass of old calcareous and recently inflamed glands which occupied the angle between the end of the ileum and the cæcum—that mass of glands which often forms a considerable part of the *lump* in cases of appendicitis. I removed some of them for microscopical examination but no organisms were found either in them or in the walls of the appendix.

The cases of recurrent appendicitis in which we hesitated to recommend radical cure used to be very numerous, in fact not many years ago they all belonged to this category. Now it dwindles and apparently approaches extinction, as we recognise how slight are the dangers of the operation and how perilous is the condition often met with in operating after the first attack. I make a point now of inquiring into the question of chronic septic poisoning and if there is any suspicion of it I consider it a strong argument in favour of recommending the removal of the probable source of the trouble.

In operating upon cases of appendicitis in the quiet stage we often meet with buff-coloured patches looking not unlike necrosed fat. Sometimes the interior is quite soft, sometimes it looks like actual pus. I am informed on good authority that the bacterium coli commune is to be found in this material. There can be little doubt that these yellow masses are the remains of abscesses. I remember once coming across such a deposit in the process of formation. The case had apparently commenced in the ordinary way but suppuration had extended across to the left side of the abdomen, where a huge collection of pus existed. Round the appendix, where there was a very slight swelling, there was a minute collection of pus which was evidently becoming inspissated but was separated by a considerable extent of peritoneal adhesions from the main collection in the pelvis and on the left side.

Probably in the majority of cases of relapsing appendicitis small abscesses are formed, I expect that quite appreciable collections of pus exist in many, but that they are absorbed by the peritoneum. For my present purpose it is interesting to inquire whether the patient suffers in any way from the presence of these inspissated abscesses, either because their contents are absorbed or because they are liable to light up again independently of fresh acute mischief occurring in the appendix. That this occurs sometimes is rendered highly probable by the fact that it is not uncommon in operating within a few days of the subsidence of an acute attack to meet unexpectedly with a small collection of pus. I have actually found in such an abscess the stercolith which had escaped from the appendix, although the lump had gone and the temperature had for days been normal.

One of the most important diseases of this class is *pyorrhœa alveolaris* and I make no scruple in referring to it, although it is now rather prominently before the profession and the public and I have already myself published something upon it.[1] It is important first because it is so common

[1] Transactions of the Royal Medical and Chirurgical Society vol. lvxxiii., p. 23.

and so insidious; secondly, because its effects are so pernicious and so varied; and thirdly, because it is so difficult to cure that our friends the dentists are apt to give it up as a bad job. Spongy gums seem to be such a trivial complaint and the inconvenience is to many people—people who are not very particular—so slight that they seldom, unless the importance of it is pointed out by the medical attendant or the dentist, think it worth while to apply for treatment. The people who never wash their teeth seem to suffer but little from it, even when it is far advanced and their mouths are in a foul condition, though what their sensations must be I find it hard to conjecture. In our own walk of life the complaints usually made are: (1) that the gums bleed when the teeth are washed or when they are sucked; (2) that there is a disagreeable taste in the mouth; and (3) sometimes, but by no means always, that there is a large amount of expectoration which may have the appearance of pus mixed with saliva or be more or less deeply blood-stained. The patients will often tell you that it has not only a highly offensive taste but an offensive smell, though of this they are often quite unconscious. Anyone, however, who has once recognised the very disagreeable sickly odour which is associated with the disease has unfortunately only too often the opportunity of recognising its presence amongst his own acquaintances. It is often asserted most positively that this expectoration comes from the back of the nose or the throat or is coughed up from the lung and patients are only convinced that they have been mistaken when the disease has been cured or placed in abeyance. Occasionally the saliva or bloody fluid runs out from the mouth at night on to the pillow and this when it does occur is almost pathognomonic of the disease. If the expectoration be allowed to settle the deposit has a very close superficial resemblance to pus. It does, indeed, contain a certain amount of pus but by far the greater part of it consists of squamous epithelium which should at once suggest its source. It is perhaps not generally known that a small amount of fluid of this sort—I mean one looking like pus mixed with saliva—may be obtained by anyone, however clean his mouth, by sucking for a few minutes at his gums with the tongue. The signs of the disease are not very obvious if the patient is particular and brushes his teeth frequently; perhaps only a bright red line at the edge of the slightly retracted gums. I particularly want to emphasise the fact that such appearances are consistent with a very advanced stage of the disease. A very fine probe will very likely, even when there is nothing more to be seen, pass a long way between the separated gums and the fangs of the teeth and it is from these pockets that the noxious material is being constantly expelled into the mouth. In advanced cases when the patient takes no care of his mouth there is no difficulty in making a diagnosis. The extensive retraction of the gums which are obviously spongy and probably bleeding, the yellow line of fur and pus, the absorption of the alveolus and exposure of the fangs covered with tartar, the gradual loosening of the teeth, and the stinking mouth are quite unmistakeable.

Without attempting to summarise all that is known of pyorrhœa and before coming to the reason for including it in this paper there are two or three things more to be said: 1. It very often occurs in members of the same family, whether because it is hereditary, or infectious, or because the habits of the individuals are the same I do not know. 2. The fangs of the teeth, where they are surrounded by the pockets, are covered with tartar and it is impossible to cure the disease without eradicating these deposits. It is here that the chief difficulty of treatment comes in. The tartar is of two kinds, true tartar or salivary calculus consisting of phosphate and carbonate of lime with ptyalin and animal matter, and black tartar, dark in colour and of dense consistence. The relation of the tartar to the disease has been much discussed. By some it is supposed to cause inflammation of the gums by its presence and so to start the ulcerative process. By others it is supposed to be a secondary affair. For us it is important to remember that the black tartar is found on the fangs of the teeth right down to the bottom of the pockets. It was on the removal of this tartar that Dr. Riggs of Hartford, Connecticut, very strongly insisted in what was really the first rational suggestion for the treatment of the disease, and I do not altogether grudge his memory the name of "Riggs's disease" by which for long it was known. His treatment was by special powerful scarifiers and is said to have been painful but for a time successful.[2] 3. The disease usually starts in young adult life and if unrelieved will almost inevitably lead to premature loss of the teeth. 4. Controversy is still maintained as to whether or not it is often or ever caused by the gouty diathesis but the balance of evidence appears to be against this suggestion.

Now I will ask you to consider what it must be to be always swallowing day and night, year in year out, these septic organisms and their products. I can imagine an objector saying that the stomach is well able to give a good account of micro-organisms and that a mouthful of cheese contains more living inhabitants than does the continent of Europe, or urging that if the disease is so common we ought to see more of its results, or, again, that the human body is after all a joint-stock concern and gets along very well with its associated organisms and, in fact, might be rather in difficulties without them. In order to answer these criticisms let us try to realise the actual state of things as far as modern investigations enable us to do so. An admirable work on "The Mycology of the Mouth" by Kenneth Weldon Goadby has appeared this year, in which he gives with careful detail his own observations as well as those of previous observers, of whom the best known are Miller and Galippe. It is there stated that the micro-organisms seen on direct examination may be tabulated as follows: (1) cocci, generally in diplococci, and massed around the epithelial cells in clumps; (2) thick bacilli generally jointed and often showing considerable irregularity in their staining characters; (3) thick bacilli with pointed ends and somewhat of the shape of a bean-pod (they frequently show a division in the centre and appear as two elongated triangles with the bases opposed); (4) various fine bacilli, 0·5 μ and under in width, often exhibiting an irregular beaded marking, especially well marked in the larger threads which may be of great length; (5) spirilla, spirochætæ, and comma-shaped bacilli, all showing marked motility in the hanging drop; (6) various yeast forms, sometimes with a partially developed mycelium; (7) streptothrix threads, generally showing well-marked clubs; and (8) masses of bacilli associated with the threads, some jointed in chains, others free and often massed in clumps; some of them exhibit polar staining. Many of these organisms obtained in pure culture are pathogenic to animals, but it is remarkable that the best observers agree that the common pus cocci only occur in about 10 per cent. of the cases examined. Cocci, indeed, are found in all cases, but it is supposed that they are not precisely the same as the pus cocci. Be that as it may, it is clear that a vastly larger number of pathogenic organisms, and probably in a much more active state than normal, are constantly being swallowed. The stomach no doubt can deal with a good many organisms by virtue of the hydrochloric acid in the gastric juice. But there are many organisms which it will not kill—such, for example, as the typhoid bacillus—and it has not been ascertained how far the pathogenic organisms of the mouth are affected by it. They come down in great numbers and the resisting power of numbers is greater than the resisting powers of a few; in other words a concentrated dose is more effectual than a dilute one. They come down too at all times of the day, both when the stomach is full and contains hydrochloric acid and when it is empty and contains little or none; and Dr. William Hunter considers that he has demonstrated[3] that in cases where there is profuse purulent discharge into the mouth the pus cocci become permanent residents in the stomach after producing what he calls septic gastritis. Lastly, it is impossible to say why one person suffers from septic poisoning and another escapes, just as it is in the case of the exhibition of other toxins, whether septic or not. It is the personal equation which we do not understand. It is the amount of resistance that is greater in one individual than in another or is greater in the same individual at one time than at another, depending on the state of his bodily health at the time.

I now pass on to enumerate the diseases which have been supposed to be caused by pyorrhœa and other forms of oral sepsis, a long account of which is to be found in Hunter's paper and in the writings of others. They include septic

[2] Some dentists have recently denied that tartar is always present.

[3] Oral Sepsis as a Cause of Septic Gastritis, Toxic Neuritis, and other Septic Conditions, Practitioner, December, 1900.

fever, rashes, and profound septicæmia, purpuric hæmorrhages and bleedings from the gums, toxic neuritis, septic gastritis, stomatitis, pharyngitis, and tonsillitis, ulcerative endocarditis, pernicious anæmia, chronic dyspepsia, bronchiectasis, &c. This is a sufficiently formidable list but not, I am sure, a complete one.

I desire, however, to draw attention not only to the diseases which pyorrhœa may cause but also to those which it may simulate. I reported three instructive cases in the paper above mentioned and to these, with one or two others, I will briefly refer.

CASE 1.—The patient was a woman, aged 45 years, with a long history of previous illnesses dating back to 1881, including a miscarriage, a bad confinement, uterine displacements, vaginal discharge, floating kidney, shivering fits and headaches, and five or six attacks of influenza with chest and bronchial troubles. The expectoration began in 1897 and was at first green and then bloody and offensive. The diagnoses made were: pleurisy followed by a small empyema, pleurisy followed by bronchiectasis, and subdiaphragmatic abscess connected with the right kidney and bursting into the lung. But there were no abnormal physical signs except slight retraction of the right posterior base with lessened movement, some increased resistance on percussion, and weak breath sounds. Her principal complaint was the extremely offensive expectoration, amounting to five or six ounces in the 24 hours, not exactly coughed up but hawked up from the back of the throat a foul taste, and breath offensive to others. The teeth were very carefully attended to and only showed the red line and slight retraction of gums to which reference has been made, but the pockets were numerous and deep. All her troubles were removed by the effectual treatment of the gums. Her daughter suffers from the same complaint.

CASE 2.—The patient was a woman, aged 25 years, who had a well-marked attack of right pleurisy in March, 1899. Expectoration began at the time of this illness and became bloody six months later and was always offensive. It was brought up in the same way as in the last case. She had lost flesh and perspired at night and was very anxious about her state and especially about the foul taste in her mouth and offensive smell of her breath. A few physical signs resulting from the old pleurisy remained at the right base and I was requested to open a supposed abscess of the lung in this situation. She had very marked pyorrhœa and was at once relieved on treating the gums. Her sister suffered from pyorrhœa.

CASE 3.—The patient was a man, aged 66 years, who had very marked pyorrhœa round his few remaining teeth. He had suffered from three or four mild attacks of diarrhœa in quick succession when he was seized with an acute attack of glossitis and stomatitis with profuse and offensive salivation. The gums became much more swollen and the suppuration copious. The tongue was enlarged and thickly coated. Superficial ulceration appeared at several spots where the teeth impinged on the lips and under surfaces of the tongue. There was for a few days considerable fever. He also rapidly improved under vigorous treatment of the gums.

CASE 4.—Dr. Martin supplied me with notes of a case which was supposed to be cancer of the stomach depending on the same cause.

CASE 5.—A woman was sent with obscure abdominal troubles which it was thought might be relieved by fixing the moveable right kidney, though her symptoms depended only on pyorrhœa.

There are, however, other reasons why pyorrhœa is important to surgeons. I need not remind my surgical colleagues of the importance of treating it thoroughly before undertaking any operation upon the mouth nor how much the mortality of operations on the stomach, the tongue, and the jaws has been reduced since a careful toilet of the mouth has been recognised as an essential preliminary. I have always a supply of tooth brushes and Miller's excellent mouth wash at hand in my wards for all comers and direct the sister to inquire into the state of the patients' mouths and to deal out the tooth brushes when necessary. Then I have seen quite a few where the disease has been mistaken for chronic pharyngitis, diseases of the antrum, and other inflammatory diseases of the mouth and naso-pharynx. Lastly, we must examine ourselves periodically and see whether we are the subjects of this disease, for it must not be forgotten that we become dangerous to the community if we have not clean mouths. A short-sighted or over-eager surgeon may spoil the effects of the most elaborate antiseptic preparation of his patients by breathing or coughing on to the surface of a wound; an irritable or didactic one may by injudicious speaking during an operation positively put his patient's life in danger; in fact, I have more respect for the practice of some surgeons who always antisepticise their mouths before an operation and wear a mask and rigidly refrain from speaking during its performance than for some of those elaborate details which almost seem like bowing down to, and worshipping, a fetich.

One word must be said about the treatment. It does not, of course, rest with us but with the dentists who have carefully and repeatedly to clear away the tartar from the fangs and then to attack the organisms contained in the pockets either by syringing or packing, using such antiseptics as peroxide of hydrogen, chloride of zinc, or essentials oils, and sometimes freely slitting up the pockets in order to gain access to the mischief and give free exit to the pus. I regret to say that some dentists I have sent patients to have treated the notion that pyorrhœa could possibly cause such symptoms as I have described as moonshine or have plainly told the patients that they are incurable or have advised the extraction of all the teeth. The last is certainly effectual but it is rather a strong measure and I know from ample experience that with patience and perseverance on the part of the patient and the dentist very much may be done without proceeding to the *ultima ratio*. But it must be added that the problem of the effectual treatment of Riggs's disease amongst the poor has not yet been solved and I would earnestly commend it to the attention of scientific dentists. I suggest that it will be found in making freer incisions into the gums so that the pockets can be done away with, treating them, in fact, like ordinary abscesses and then supplying the patients with good hard tooth brushes and some cheap but efficient oral-bactericidal mouth wash. It is not too much to hope that in otherwise unexplained cases of chronic septic poisoning we shall all get into the habit—that is the important thing—of critically examining the gums and insisting upon the treatment of this most insidious complaint.

Amongst the conditions in which small amounts of pus or morbid products are constantly leaking into the system are some to which a brief reference only can be made. The most striking amongst these is the development of lardaceous disease in the subjects of chronic suppuration. A great deal is known about the morbid anatomy and chemistry and symptoms of this disease but remarkably little about its pathology. All, however, seem to be agreed that almost all the cases depend either upon prolonged suppuration or upon syphilis and that in many of the syphilitic cases suppuration is also present. It is, indeed, almost hinted in the last edition of the "Principles and Practice of Medicine" by Fagge and Pye-Smith that it may ultimately be found that all will fall into one or other of these two categories. They say: "Many writers speak of scrofula, chronic tuberculosis, cancer, malaria, rickets, and syphilis as being alike constitutional diseases which predispose to the development of lardaceous degeneration," and to these we must add some forms of kidney disease and lymphadenoma. They continue: "In the first place, it is doubtful whether scrofula, or otherwise the presence of tubercle in the lymph-glands or joints, has any influence apart from its tendency to cause suppuration. In the second place it is certain that syphilis leads to the lardaceous change even when the formation of pus has occurred only to the most insignificant extent if at all. We may therefore reduce the known causes of the lardaceous change to two—chronic suppuration and syphilis, sometimes combined but capable of acting separately." In 1876 Fagge brought before the Pathological Society an account of 244 cases collected during 24 years at Guy's Hospital. Of these 153 were due to prolonged suppuration divided as follows: phthisis, 67 cases; joint or bone disease, 51 cases; chronic diseases, dysentery, &c., 36 cases; very slight suppurations, such as chronic discharge from the ear and nose, suppuration of one testicle, caseous glands, &c., five cases. This very interesting series of cases is brought up to the year 1899 by your last President, Dr. H. J. Campbell. The total amount then reached 546 and of those only 19 remained unaccounted for by anatomical evidence of chronic suppuration or syphilis. Of these 19 the post-mortem notes of six, at all events, are unsatisfactory and in all there must be the difficulty of excluding syphilis. The remaining 13 died from miscellaneous diseases the relation of which to lardaceous change is not obvious.

I do not want to ride my hobby too hard but is it too

fanciful a suggestion that the mouth should be carefully searched in cases where lardaceous disease occurs without obvious cause? Each suppurating cavity round a tooth fang is, of course, a small one, but if they were added together the discharging surface would be one of considerable size and I can quite imagine that lardaceous disease may have to be added to the list of those depending on pyorrhœa alveolaris and other forms of oral sepsis.

The actual manner in which lardaceous disease is produced by chronic suppuration has yet to be determined, for we can hardly consider the question to be finally settled by the interesting experiments of Dr. Alan B Green (communicated to the Pathological Society by Mr. T. Strangeways Pigg on Feb. 6th, 1900, in a paper on the Production of Amyloid Disease in Animals). His method was to inject rabbits subcutaneously, intravenously, or peritoneally, or to inject into the pectoral muscles of hens one cubic centimetre of a broth culture of staphylococcus pyogenes aureus, the dose being repeated and gradually increased until toleration was established. Only a few animals survived for any length of time, but some of the rabbits lived for three, four, or five months, and one hen lived for 15 days. The organs after death showed appearances which were supposed to indicate lardaceous changes. It must be owned that the conditions thus produced were not very similar to those in which lardaceous changes are developed in man and that the results are not quite convincing, so as no further experiments have been reported up to date, we are still uncertain whether lardaceous degeneration is caused by some such process as was suggested by W. H. Dickinson in 1867—viz., that the draining away of alkaline salts by the pus transformed fibrin into lardacein—or whether, as is more likely, it is caused by the re-absorption of some of the products of the micro-organisms by the walls of the cavities in which the suppuration is occurring. It may be, indeed, that neither of these is the correct explanation.

Some peculiar points about lardaceous disease cannot fail to strike the clinical observer: (1) that whilst some individuals may remain free from it for many years who suffer from a chronic issue of pus others develop the disease and fall victims to it in a comparatively short space of time; (2) that though it is very often associated with clubbing of the extremities the two conditions may occur singly or one may precede the other by a long interval; and (3) that if the cause of the disease is removed an almost complete recovery may take place even when the viscera have been profoundly affected. I have seen, for example, a young man with a chronic empyema of small size which had been imperfectly drained and was still discharging; his liver was enormous, his urine became solid on boiling, and his fingers were tremendously clubbed. A free incision into the empyema led to its closure in a few weeks and all his symptoms and signs disappeared except that he never quite lost all traces of albumin in the urine whilst he was under observation although some samples were free from it.

I have under my care at the present time a tuberculous patient, 46 years of age, who has had an empyema running for 15 years or more but which was always very freely drained. He has enormously clubbed fingers but there is no albumin in the urine and there is no obvious enlargement of the liver. He has had attacks of albuminuria which have passed off and he has also had attacks of synovitis of the knees which have subsided, but he certainly has no characteristic signs of lardaceous disease. I attribute this to the free escape for the discharges which has always been maintained, and I think it is important, if we are driven to the conclusion in any particular case that a source of suppuration cannot be stopped, to maintain the most thorough drainage possible, in spite of the entreaties of the patient to be relieved of the bother of drainage-tubes; for I think it is in cases where the pus is confined that lardaceous disease is most rampant. A confirmation of this idea is to be found in the fact that all pathologists allow that lardaceous disease is far less common than it used to be before the modern improvements in surgery were introduced.

It is, of course, a matter of every-day observation that the amount of absorption from the walls of an abscess is very much modified by the freedom of the escape of the pus; the immediate onset of symptoms of septic absorption when the exit becomes blocked is as familiar to everybody as is the rapid disappearance of such symptoms when either an acute or a chronic abscess is freely incised. There is another illustration of the same fact but of a totally different nature to which I do not recollect having seen any reference. I refer to cases where a septic abscess has existed under high tension without producing any serious symptoms, but where free evacuation has been followed by very rapid and even fatal septic absorption, presumably from an increased vascular flow through the pyogenic membrane. That such increased vascular flow is the immediate result of incision is shown by the copious and sometimes serious bleeding that follows the incision of acute or even chronic abscesses. Is it not then thinkable that the walls of a chronic abscess if imperfectly drained may absorb more readily than those of one in which the discharges are never allowed to accumulate? To illustrate my meaning I will mention two very striking cases. One was that of an old lady over 70 years of age who many years ago had an abscess connected with a perforated appendix which was left longer unopened than would be the case nowadays, but whose condition was quite good at the time of the incision. She rapidly died from septic absorption as soon as the pus was let out. The other case was that of a child with general peritonitis from the same cause, upon whom I only operated at the urgent request of the parents as she seemed to be *in extremis*. She, however, got better and seemed to be on the road to recovery, but after some weeks a left subdiaphragmatic abscess formed. Its evacuation was rapidly followed by a fatal result and I have seen the same thing happen after operating on very septic abscesses of the liver and other parts of the body.

Originating from similar causes to those which give rise to lardaceous degeneration is the disease, or rather are the diseases, known as pulmonary osteo-arthropathy, in regard to which I would only reaffirm my belief that more than one condition has been included under the description, and that the ordinary case (if I may be allowed the term) is a combination of clubbed extremities and septic osteo-arthritis. That the chronic septic poisoning is an important factor will be allowed by anyone who has observed a case develop, and still more readily by one who has attended, as I have done, at a cure. I have watched a man with this complaint who had an unopened empyema of long standing, urging him to allow me to lift his burden which he sullenly refused. At last perforation into a bronchus occurred and he expectorated the empyema and rapidly lost all his symptoms of pulmonary osteo-arthropathy and at the same time his disagreeable temper, for, although he still takes credit to himself for his cure and I believe has stated that I am but a poor doctor, he is now quite sweet-tempered and seems to be very grateful for all the attention he received in the hospital, for which at the time he showed little or no appreciation. Let it not be forgotten that pulmonary osteo-arthropathy of the type I am describing is a curable disease if the *causa causans* can be tackled, but as this is generally bronchiectasis or some other incurable condition the prognosis is usually hopeless.

The *septic osteo arthritis of young women often accompanying leucorrhœa*, and with which the name of the late Dr. Ord is associated, and the various forms of gonorrhœal rheumatism are matters of common knowledge and must not now delay us, though they clearly belong to the same class. I will only point out that the original cause of the mischief is, in my experience, frequently overlooked, especially if it be leucorrhœa, and I would urge the importance of inquiring into and treating it. It seems irrational to attempt to treat the joint disease without first attacking the source of infection.

I now pass to another group in which the morbid material has no obvious access to the general circulation or digestive or genito-urinary tract but remains for a time apparently encapsuled. Everyone must have observed that some, though not by any means all, patients with chronic tuberculous glands in the neck are always ailing—are in an indefinite state of ill-health—even though the glands may not be discharging. An operation is perhaps undertaken, partly for cosmetic purposes, partly in obedience to the teaching (which dates back certainly to the time of Niemeyer and perhaps even earlier) that the presence of cheesy (tuberculous) deposits may be under conditions of lowered vitality the source of a general tuberculous infection. And after the operation such patients often become quite robust. Now although it must be allowed that they are usually at the time of life when, even if nothing be done, there is a tendency for the body to become stronger and to get the better of tuberculous tendencies, the improvement is usually

too rapid to be accounted for in this way. There seems to be some chronic poisoning going on, some secretion from these glands analogous to the internal secretion of such organs as the thyroid and the testicle, and this is I think a strong argument in favour of the removal of cheesy glands when they can be all got away.

It is amazing how long these tuberculous deposits may remain in an apparently quiescent condition. I had under my care a delicate middle-aged lady who had recurring attacks of suppurating glands in the left side of the neck and cheesy glands in the left axilla. After many operations on the neck she encouraged me, when tackling the axillary glands, to remove a small hard lump in the breast of the same side which she told me Mr. John Burkett had seen 30 years before and told her it would never give her any trouble, no doubt taking it for a fibro-adenoma or for chronic mastitis. It turned out to be a tuberculous abscess with calcareous walls which not improbably had a good deal to do with the development of the glands in the posterior triangle and her constant ill-health.

In this connexion I would refer to a man, 46 years of age, whom I first saw in 1901. He had never had good health and was always thin but had become much thinner—in fact, he was strikingly thin. For 23 years he had suffered from "crampy pains in the left hip if his bed was uncomfortable." For three years he had had lumbar pain, supposed at first to be lumbago, and pains in the left hip, and they had gradually become worse. His digestion was miserable and his circulation was very poor. He had an old lateral curvature, possibly due to an attack of pleurisy seven years previously. When I saw him he had a huge psoas abscess connected with caries of the lumbar spine. It was opened and treated in the ordinary way and he was kept on his back for a year. As soon as the abscess was opened he began to get better, his digestion rapidly improved, and at the present time he can eat almost anything. He quickly put on flesh and is now a very fat man. He has lost several nervous symptoms which previously troubled him and his old friends would hardly recognise him. Arguments about medical matters are notoriously liable to fallacies and it must be stated that he says his family usually get fat at about the age of 40 years, but I cannot doubt that he had had some pus pent up for many years and that the evacuation of this had much to do with the really extraordinary change in his condition that has taken place.

Another very remarkable case of a more acute type was that of a boy, seven years of age, who came under my care at the hospital on Jan. 24th, 1900, with *acute infective osteo-myelitis* of the right femur. A six-inch incision on the outer side of the thigh gave exit to a large amount of pus and it was found that the periosteum had been widely stripped off. A hole was made into the medullary cavity which was apparently healthy. Suppurative pericarditis rapidly followed and four days later the pericardium was opened and drained through an incision in the fourth left intercostal space by my colleague Mr. Raymond Johnson in my absence. Then acute suppuration of both elbows occurred, of which the right was incised on Feb. 4th, while the other slowly recovered without operation. He had also symptoms pointing to embolic abscesses in the lungs. On Feb. 16th he complained of headache. Double optic neuritis and other symptoms of abscess of the brain but without localising symptoms followed, but as the wounds closed the headache disappeared though the optic neuritis did not clear up. He left the hospital on May 15th with the pericardial and elbow-joint wounds closed but with a sinus leading down to bare bone in the thigh. He was cheerful and well but the temperature was not regular, sometimes running up to 100° F. and at the end of this period falling below normal. In a fortnight (on May 31st) he came back with headache and vomiting. Localising symptoms, consisting of weakness and ataxy of the left side of the face and body, and weakness of the right external rectus showed themselves on June 26th, and on the 28th a large abscess was opened behind the right fissure of Rolando, the odourless contents of which contained staphylococci. A large hernia cerebri formed. There was no improvement in the paralytic symptoms but there was a gradual return to health and the optic neuritis to a great extent cleared up by September. The temperature, however, remained a little erratic, occasionally rising to 100°. He now left the hospital and used to show himself from time to time, a fat happy boy, limping in on his crutches, for the hemiplegia did not improve and contracture set in. The hernia cerebri still formed a prominent tumour which was protected by a metal plate, and all his wounds, even that in the thigh, ultimately completely healed. And then on April 5th, 1901, after more than six months, he came back again with further symptoms of cerebral abscess which was opened after removing more of the bone. It was drained and irrigated but without avail and he died nearly 18 months after the onset of the disease. At the necropsy the scar of the original incision of the thigh was found to conceal a small abscess two and a half inches long by three-eighths of an inch wide in which lay a sequestrum completely separated from the greatly thickened femur. Is it possible to doubt that this abscess was the home of the staphylococci which were constantly poisoning his system? And is it not conceivable that if this wound had not unexpectedly healed and I had removed the sequestrum in the usual way he would have made as good a recovery as such cases not infrequently do?[4] One is here reminded of the long intervals that elapse between an attack of typhoid fever and the development of necrosis and one wonders whether the presence of the typhoid bacillus in the system is quite without any deleterious effect upon the patient in the meantime. And it is impossible to forget how long a liver abscess may remain dormant and how wretched the patient's health often is whilst it is in this condition. That small sequestra may remain dormant for a very long time was pointed out by Paget, whose designation of "quiet necrosis" well expresses the condition. That they often do apparently little or no harm is also generally accepted, but that they are a real source of danger is perhaps not so generally recognised. I will now describe a case which illustrates this point in a forcible manner although the mischief here was less of a general kind than in most of those which form the subject of this paper.

In October of last year I saw a man, who was then 47 years of age, whose family history may be said to be tuberculous and who 40 years before had had necrosis of the lower end of the left femur. Whether it was acute infective osteomyelitis or tubercular it would be, of course, impossible to say. He was seen and operated upon by two most distinguished surgeons, whose names are now household words, and the wound healed and remained healed for years. 12 years before I saw him another distinguished surgeon had dealt with another abscess and had found much bare bone but no sequestrum. During all these 40 years he had numerous abscesses, but the interesting point is that they healed completely and in the intervals he could do a considerable amount of athletic exercise. The return of the abscesses became more frequent as time went on and at last occurred almost annually; each one was ushered in by acute fever and was accompanied by synovitis of the knee. The most serious attack of all was the one for which I attended him. During this the knee-joint suppurated and his life was in much danger. Free incisions into the joint, however, enabled us to save the limb and on a later occasion I made a careful exploration of the femur and there, embedded in an enormous mass of callus, were three or four small old sequestra, dating back, I have no doubt, to the original attack and which for all these 40 years had remained as possible poisoners of his system whenever a state of impaired vitality gave them a chance to invade it. Had the search for these sequestra been successfully carried out 39 years before how different would the best years of this man's life have been. Far be it from me to suggest that at the time it would have been possible or to impute any want of skill on the part of the surgeons who preceded me. For I am well aware how well-nigh impossible it is in some cases to discover such minute sequestra; and if I had been more modest I should have chosen a case in which I myself had given up the search in despair. It would have been easy to do so, though not to produce quite such a striking example. It is, moreover, exactly the case which I wanted in order to bring this paper to a close: a paper in which I have brought together a variety of subjects, differing in all sorts of ways, but all linked together by one idea—namely, that widespread disorders may depend upon small infections acting sometimes unperceived over long periods of time and that

[4] His heart weighed ten ounces. The pericardium was adherent but not thickened. The right lung was adherent to the chest wall by complete, and the left by scattered, adhesions. The ventricles of the brain were distended with pus. There was septic basic meningitis. There were two large abscesses in the brain, one occupying the right parietal and occipital lobes and the other the left occipital lobe.

neglect of observing the cause may lead to the adoption of erroneous lines of treatment.

It will not do for us to say, like our brethren of the long robe, "*de minimis non curat lex.*" The smallest things for the medical man are often of paramount importance. Why, the whole of modern surgery and a great part of modern medicine are based upon the study of objects so minute that they were a generation ago either quite unknown or looked upon as the curiosities of the microscopist. I do not pretend in any way to have exhausted the subject. I have dealt with it chiefly from the surgical side, but I feel that a physician might easily have said as much or more from his own point of view. I trust, however, that what has been said and suggested may prove not quite uninteresting and open up some fruitful lines of thought.

I met the other day a distinguished Yorkshire surgeon who said he was going to do me the great honour of coming to hear me to-night. I told him I was going to talk about little drops of pus. "Pus," he said, "we never see pus." Well, I always take a statement about never seeing pus with a grain of "salt," as I know those who make it intend it should be taken, for we must all see pus in abundance unless our practice is of a very limited nature. But I know what he meant. It is not, however, the pus that we see that I am now urging the importance of. He put the emphasis on the word *see*: I put it on the *little drops*. I am pointing out the subtle influences of the pus that we do not see, of the pus we have to go in search of, or even to recognise the existence of by a process of ratiocination, the unseen pus that walketh in darkness and wasteth at noonday. I am urging the necessity of not treating unexplained septic symptoms without searching for their cause and of remembering, as Jenner used to say, that we miss more by not seeing than by not knowing, and that while nature sometimes seems to spread her book wide open to our gaze she more often hides her secrets and for their disclosure demands our deepest thought and most painful scrutiny. So that for him who has failed to search her out and to meet her advances the "*history*" will for ever have remained a "*blank*" because—

> "She never told her love,
> But let concealment, like a worm i' the bud,
> Feed on her damask cheek."

ABSTRACT OF

A Clinical Lecture

ON

A PATIENT WITH MITRAL STENOSIS.

Delivered before the Students at the Bristol Royal Infirmary, on Nov. 14th, 1903,

BY HENRY WALDO, M.D. ABERD., M.R.C.P. LOND.,
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GENTLEMEN,—This female patient, aged 31 years, unmarried, is the subject of valvular disease of the heart dating back five years only when she had an attack of rheumatic fever. It is chiefly the mitral valve which is involved. In the large majority of cases of mitral valve disease the left auriculo-ventricular orifice is distended but in this patient it is just the reverse for the left auriculo-ventricular opening is contracted. It is a case of mitral constriction or stenosis. In this pathological condition women are much oftener affected than are men. The etiology of mitral stenosis is that an inflammation of the mitral curtains is set up, a valvulitis or an endocarditis, from some cause which in some cases is ill understood, but in the majority of cases, as in this one, it consists of the rheumatic fever poison. When a child contracts rheumatic fever the affection of the joints and the fever may be very slight and easily overlooked. You will understand from this how difficult it is in some cases to get a history of rheumatic fever, and as a matter of fact the distemper sometimes expends itself solely upon the cardiac organ. As you know, girls are more liable to rheumatism and chorea than are boys and so it is we think that the female sex suffer so much oftener from mitral valve disease. In a few cases endocarditis may be set up by other febrile conditions, such as scarlet fever, or measles, or whooping cough, and the wonder is that patients with this last malady escape as they do, for the strain on the heart valves must be very great. Perhaps a very small percentage are congenital. Later in life mitral stenosis is associated with chronic kidney disease. The amount of constriction in cases of mitral stenosis varies very much, as well as does the shape of the opening. In extreme cases the opening from the left auricle into the left ventricle will scarcely admit a crow quill. I have seen valves in this condition. The most common shape of the opening resembles a button-hole and is well known as the "button-hole mitral." The valve is sometimes funnel-shaped, with the cone extending into the ventricle. The endocarditis extends from the valve segments to adjacent parts and we find the chordæ tendineæ are thickened and glued together.

The diagnosis of mitral stenosis is in the large majority of cases most reliable and if the physical signs are well marked you may feel confident about the condition of the valve, although you can never go so far clinically as to say whether the orifice is of the button-hole or infundibular shape. In listening for the characteristic presystolic murmur put your stethoscope over the area of the cardiac impulse. This murmur is usually very circumscribed and not conducted as a mitral regurgitant murmur is. It is rough in quality, extends all through the diastole or only during the latter part of it, as in this case, and ends abruptly in the first sound or in a systolic murmur which replaces the first sound. The rhythm is well described as thumping. We speak of a pure presystolic murmur when it is unaccompanied by a systolic murmur. Balfour thought that there was always a certain amount of regurgitation in all cases of mitral stenosis, although not necessarily accompanied by a systolic murmur. If we ask this patient to walk up and down the ward you will hear the presystolic murmur more clearly. We imagine that this murmur is produced by the left auricle, with its hypertrophied wall, contracting, which it normally does, just before the ventricular systole and so it is often spoken of as an auricular systolic murmur. It is also called the crescendo murmur of mitral stenosis. When you are listening to it keep a finger on the area of the cardiac impulse which enables you to time the murmur correctly.

There is in this case a systolic murmur heard inside the left nipple also which is, I think, conducted from the tricuspid valve. If it were mitral you would expect the cardiac impulse to extend outwards beyond the left nipple; the left ventricle would be hypertrophied and dilated but there is no evidence of this. You will notice that the second sound is inaudible at the apex which I have often noticed in other cases. In pure mitral stenosis the left ventricle is not enlarged; theoretically it should be smaller than in health, for it certainly receives less blood to deal with in consequence of the contracted mitral valve. In the late stage of these cases when the left auricle is very distended and the right ventricle fails to equalise the circulation the presystolic murmur disappears. The cardiac dulness to percussion extends to the right very considerably and not at all to the left. Owing to its breadth the heart has been likened to that of a turtle. The enlargement is due to the increased size of the auricles and right ventricle. The strain on the right side is so great in some cases as to induce chronic endarteritis of the branches of the pulmonary artery. Osler has seen two cases of paralysis of the left vocal cord caused by pressure of the enlarged left auricle on the left recurrent laryngeal nerve. If you place your hand over the seat of the cardiac impulse you will perceive a quivering sensation which is the presystolic valvular thrill. It is more marked during expiration and also after the patient has moved about the ward. It is a very important sign in confirming your diagnosis.

The pulse in this patient is infrequent and regular; in a more advanced stage it would be small, frequent, and irregular and some of the heart beats may then be imperceptible in the radial arteries. You will see clearly that this contracting mitral valve forms a diaphragm and so causes obstruction to the circulation in proportion to the size of its opening; there is in consequence more or less blood stasis which favours blood clotting. This is most likely to occur in the auricular appendices and pieces of this blood clot are liable to be carried with the blood stream until they are arrested, forming emboli. It is also thought that the blood may solidify in the vessels themselves, forming thrombi. When these emboli or thrombi are present in the vessels of

the lungs they are the origin of infarcts and account for the attacks of hæmoptysis which these patients are so subject to. This patient has had several. The bleeding from the lungs is of course influenced by the increased blood pressure, the result of hypertrophy of the right ventricle. The emboli which find a lodgment in the systemic arteries are either pieces of vegetations from the mitral valve or broken up blood clot, usually from the left auricular appendix. These emboli not infrequently fix themselves in the cerebral arteries, usually in those of the left cerebral hemisphere, as being a more direct course from the aorta, and so explain the symptom which we call hemiplegia. So far this patient has escaped this form of paralysis. Embolism may sometimes be suspected in the renal vessels by the patient passing blood in the urine. In mitral stenosis the urine is usually scanty, as the renal vessels are inadequately supplied with blood and the arterial pressure is low.

Dropsy does not occur so often here as in cases of mitral insufficiency and it is not unusual when it shows itself to begin as ascites. The liver is often enlarged and tender and sometimes extreme pain is complained of in this region which depends upon stretching of the liver capsule. The deficiency of the circulation in the stomach and the bowels may give rise to indigestion and even to hæmorrhage.

The imperfect circulation through the brain would account for the sleeplessness which these patients frequently complain of. Bronchial catarrh is very easily set up on account of the abnormal moisture in the lungs. If the hepatic veins are much dilated a pulsating liver may be present. The blood tends to accumulate on the right side of the heart, notwithstanding Sansom's assertion that the circular muscular fibres in the pulmonary veins exert a powerful sphincter action, which, he says, can be demonstrated, and that it assists in keeping the backward blood pressure away from the lungs in cases both of mitral stenosis and mitral regurgitation.

In giving a prognosis a most favourable sign is a well-marked second sound heard at the pulmonary area, which is sometimes reduplicated. The closure of these cusps is sometimes so forcible that they can be felt by the hand in the second left interspace as a shock. This means that the hypertrophy of the right ventricle is well maintained and in association with this there is a pronounced pulsation in the epigastrium.

In treating these patients rest in bed is often necessary; they should at any rate be cautioned not to over-exert themselves. If the venous system is very full of blood opening a vein in the arm is sometimes a good palliative. In this condition of an over-distended venous system no drug is more valuable than blue pill, given perhaps in conjunction with enough compound colocynth pill to produce a watery evacuation. Compound jalap powder is useful for dropsical complications. When the pulse becomes very weak and frequent cardiac tonics are indicated and strychnia or digitalis should be given. If the urine is very deficient the best cardiac tonic to give would be caffeine which is stronger and better than the citrate of caffeine. Insomnia is frequently a troublesome symptom in these cases and it may be necessary to prescribe chloralamid occasionally at bedtime. Easily assimilated, light nourishment is all important, but see that all the food you give is digested, for although sudden death is a very rare occurrence in cases of mitral stenosis it may be induced if the stomach is distended and so allowed to press upon the right heart. I think the cardiac pain is best relieved by advising very little fluid to be taken. A little alcohol is usually required in treating these cases.

THE MAIDA VALE HOSPITAL AND HOME FOR INCURABLE CHILDREN.—The President of this institution, H.R.H. the Duke of Connaught, occupied the chair on the evening of Nov. 25th at the festival dinner in aid of the charity in the Prince's Restaurant, Piccadilly, W. They had met, said His Royal Highness, in the interests of incurable children of the poor who by reason of the nature of their infirmity could not be received in the large hospitals and could not be properly looked after in their humble homes. There were 30 children in the home—15 boys and 15 girls, but more room, better air, and greater nursing facilities were needed and it was proposed to remove to a superior home in South Hampstead. The cost of the transfer would exceed £12,000, towards which £6000 had already been subscribed, and for the other £6000 he appealed to the company present. It was afterwards announced amid cheers that the sum of £5400 had been subscribed at the dinner.

ON THE PRESENT TREATMENT OF THE ENLARGED PROSTATE.[1]

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THE duty of the person intrusted with introducing a discussion upon a clinical subject such as the treatment of enlargement of the prostate is not so much to read an exhaustive paper on it himself as to define those conditions of the affection which appear to him to be most likely to repay discussion, and to indicate the methods of treatment which, in his experience, are best suited to those conditions, and the reasons for selecting them. In accordance with this idea I wish to leave altogether upon one side all those cases in which catheter life is so successful that the patient manages to lead a comfortable existence by passing a catheter for himself once, or at the utmost twice, in the 24 hours. There is nothing more to be said about them any more than there is about those happy old men who are not even aware that they possess a prostate. The treatment cannot be called ideal. It merely concerns itself with one of the consequences of the enlargement and leaves the cause untouched. But if all the symptoms, both those that are present at the time and those that are likely to occur as the patient grows older, are adequately met by such a simple proceeding, and if the frequency with which the catheter has to be used does not increase as years pass by, it must be allowed that the treatment meets the necessities of the case sufficiently well. Such cases may be placed once for all upon one side. I have nothing further to say about them. I am only concerned with the exceptions, those in which this line of treatment is either a failure from the first or is morally certain to become a failure if it is persisted in; and I am sorry to say that it is my conviction that these exceptions are far more numerous than is generally believed. It is so easy to make use of a catheter after the first few attempts and it appears to be so safe, and often it gives such complete relief for a time, that it is difficult for the surgeon, and impossible for the patient, to realise the evils which may, and in a large proportion of instances do, follow its habitual use. If, however, the results of ordinary catheter life are carefully recorded and the progress noted year by year there is not the least doubt that in the vast majority there is a steady change for the worse; and if candid inquiry is made it is impossible to avoid the conclusion that the downward progress is to a very large extent the direct result of the treatment. Enlargement of the prostate is a progressive disease, though it is curious how very seldom this is realised. Neither the patient nor the gland ever remains stationary. The one steadily grows older and feebler, less and less able to help himself, and the other is always increasing in size. The difficulty grows greater and greater as the ability of the patient to deal with it grows less. Year by year the catheter has to be passed more frequently. At last its use becomes almost incessant day and night. The intervals grow shorter and shorter. The pain becomes almost intolerable. The introduction of the instrument becomes more and more difficult until it may be impossible for the patient and even the surgeon may not find it easy. The bladder entirely loses its power. The habitual passage of a catheter is enough to destroy the contractile power of the bladder within two years. Hæmorrhage becomes more frequent. And far worse than any of these, septic inflammation, due to septic organisms carried in by the catheter, is certain to set in at last. Suppurative cystitis, ascending pyelonephritis, phosphatic calculi, septic prostatitis, thrombosis of the prostatic plexus, periprostatic abscess, epididymitis, and urethritis are some of the commonest consequences of the habitual use of catheters in cases of enlargement of the prostate and are the immediate cause of death sooner or later in the majority of cases that are treated by habitual catheterisation.

It is quite true that these septic troubles ought not to

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[1] The opening paper at the discussion at the meeting of the Harveian Society on Dec. 3rd, 1903.

occur and that now that is an accepted fact that inflammation of the bladder is always the result of the introduction of septic organisms (except in the case of specific diseases such as typhoid fever), cystitis is not quite so frequent or so severe as it used to be, but it is absolutely impossible for an old man, growing year by year more feeble and less able to take care of himself, who has to pass an instrument upon himself many times by day and night often at a most urgent call, always, on every occasion, to take adequate precautions. Given abundance of time and assistance the greatest skill will scarcely suffice. With few exceptions the habitual employment of catheters means atony of the bladder and septic cystitis sooner or later; and septic cystitis, with enlargement of the prostate, means at last death by slow torture.

These are the cases the treatment of which I propose that we should discuss to-day. In actual practice there is no difficulty in finding out which they are; or if there should be a little difficulty in distinguishing them just at first a few weeks' treatment will always show. In case of doubt the catheter should be given a trial first, but if the frequency with which it has to be used increases; if the main feature of the complaint is not so much vesical inability or mechanical obstruction as irritability of the bladder; if the amount of residual urine grows larger; if there is a tendency to cystitis (for undoubtedly patients differ greatly in the degree of their susceptibility to septic organisms); if attacks of congestion are of frequent occurrence; if there is a valve-like outgrowth at the orifice of the bladder or a conspicuous thickening in the posterior median wall of the urethra; if there is any difficulty in the passage of the catheter; if the introduction of the instrument is liable to cause bleeding; if there is a tendency to the formation of calculi in the post-prostatic pouch or if the specific gravity of the urine steadily falls, it is clear that the use of the catheter does not fulfil the necessary conditions and the attempt will end in failure. It may answer for the moment. In the future it certainly will not and the sooner this is recognised and some other method of treatment adopted the better for the patient.

The first essential in the treatment of enlargement of the prostate is to form an accurate opinion as to its nature. It is not sufficient to say merely that the prostate is enlarged or even to describe its shape or size. The cause of the enlargement must be ascertained, whether it is simple congestion of the venous plexuses in and around the neck of the bladder, or actual overgrowth, or the two together in varying proportion. What relation these bear to each other, whether the overgrowth is not, in part at least, the consequence of the prolonged congestion, or whether both are not due to some more remote cause, such as the reflex influence of the testes, is a question of great interest but does not concern us now. We have to deal with the two conditions themselves, usually in combination, and the consequences to which they give rise.

Congestion of the tissues at the neck of the bladder is a much more potent factor (especially in the early days of enlargement of the prostate) in causing the symptoms of which the patient complains than is usually believed. It is the main cause of the early irritability. It greatly increases the susceptibility to inflammation. It weakens the strength of the muscular coat of the bladder by interfering with its blood-supply and at the same time it throws extra work upon the bladder by making it contract more frequently against greater resistance. It may be simply and entirely passive, the result of venous obstruction; or it may be due to the irritation caused by septic organisms or by an excess of uric acid or oxalates in the urine; or it may be reflex, the result of stimuli that originate in connexion with the sexual organs. Not uncommonly all these causes are at work together. Its frequency and the frequency with which it leads to thrombosis of the prostatic plexus may be estimated from the frequency with which hæmorrhage occurs, from the chains of phleboliths which are so rarely absent from the prostatic plexus of old men, and, more than anything else, from the benefit derived in these cases from what is called general or constitutional treatment. I have not to deal to-day with this: I am only concerned with local measures, but I cannot help pointing out that the undoubted value of constitutional treatment depends entirely upon the effect that it has upon this congestion, and in every case in which congestion at the neck of the bladder is a prominent feature constitutional measures, such as rest in bed, hot baths, dieting, and free purgation, must never be omitted. Alone, when the congestion is chiefly passive, they are often sufficient of themselves to give relief, and though unfortunately they are not so beneficial when the congestion depends upon other conditions they are still of great value.

The local treatment of enlargement due to congestion need not detain us long. As a rule local interference with a congested organ tends to make the congestion worse. But there is one method which is not popular because I believe it is not well known but which I have found of great benefit. I allude to Bottini's cautery as modified by Freudenberg. The proceeding is very simple. The bladder is distended with air so as to keep the rest of the wall out of danger and three parallel incisions are made with the white-hot blade of the cautery, one along the floor in the middle line of the neck of the bladder, the others one on each side. An anæsthetic is not necessary if the patient is accustomed to instruments though I think it is advisable. There is very little pain afterwards and I have not met with any case in which the hæmorrhage was worth mentioning. The venous plexuses in the submucous and mucous layers and the nerves, which in this region are so exceedingly sensitive, are divided; and three linear cicatrices are left which contract and distinctly lessen the tendency to subsequent congestion. I cannot recommend this method for enlargement due wholly or even in great measure to overgrowth of the gland. It is inefficient for this and there are other better methods. But in cases in which there are but little growth and much congestion, and in which there is great irritability of the bladder with the imperative necessity for immediate micturition as a prominent feature, and in which the muscular coat of the bladder is beginning to fail, a respite can certainly be obtained, if not a cure, without serious risk. Whether it has any effect in checking the growth I should not like to say but I do not consider that it is probable.

The only other local measure that needs consideration in dealing with prostatic congestion is division of the vasa deferentia or, rather, of the nerves that accompany and surround them. There is no doubt that this operation (and, of course, the other operations that entail the same results upon the nerves coming from the testes) does check to some extent the liability of the prostate to congestive attacks and, so far as these attacks are dependent upon stimuli originating from the testes, it is of some benefit, while it certainly does not expose the patient to any serious degree of risk. As, however, division of the vasa deferentia cannot have any effect upon passive congestion, or upon that which is caused by septic organisms or by irritating substances in the urine, the operation is very often a failure.

The other form of enlargement of the prostate, that which is due to irregular glandular overgrowth, admits only of mechanical treatment. It may lead to obstruction, so that no urine can be passed voluntarily, or it may cause intense irritability of the bladder, according to the direction in which it grows and the amount of congestion that attends it, but whatever it does if palliative measures, such as treatment by catheters, fail, and they nearly always do sooner or later, there is no alternative but removal in some form or other. Drainage can only be regarded as the last resource when the patient is too far gone to stand anything else.

Removal can be effected either by inducing atrophy by means of some operation upon the testes or the spermatic cords or by operating upon the enlargement itself. Of these two methods, the former, like everything else which is novel, was boomed too much and now has met the usual fate by falling into, I cannot help thinking, somewhat undeserved discredit. That it benefited a very large proportion of cases—a proportion, according to American surgeons, as high as 85 per cent.—there can be no doubt; and equally there can be no doubt that it failed sometimes (especially in those cases in which the enlargement was largely due to inflammation) and that it was attended by a much higher rate of mortality than would have been expected from the severity of the operation. Moreover, certain cases were recorded in which very grave mental disturbance, imbecility and even mania, followed the operation; it is even stated that insanity followed the division of one of the vasa deferentia under cocaine, and though I do not believe for a moment myself that the brain and testes in old men are in such close functional relationship with each other as this would imply, the fear of such an occurrence, the strong sentimental objection to the operation, and the success attending removal of the enlargement by operation, all combined, have caused this procedure to fall completely into the background.

An enlarged prostate can be removed more or less completely either through a perineal or a suprapubic opening.

When the bladder is very small and rigid from repeated attacks of cystitis and the prostate is very hard and dense the former method is indicated. Under all other conditions the prostate, as from the nature of its surroundings it must grow up towards and into the bladder, is best approached through the bladder. 14 years ago McGill advocated and performed this operation and though various modifications have been introduced since then it remains in all essential details the same. McGill described how the growth was to be enucleated with the finger after dividing the mucous membrane of the bladder and himself enucleated and exhibited both lateral lobes removed in this way. In 1892,[2] in the Hunterian Lectures delivered before the Royal College of Surgeons of England, I pointed out that "if the operation is to prove successful it resolves itself into removing the whole of the vesical mass, whether it springs from the lateral lobes, or is an upgrowth from the posterior wall, or is a detached nodule, and then extending the exploration down the whole length of the prostatic urethra," and I cited some instances in which the operation had proved, or nearly proved, a failure because the growth had not been followed down the prostatic urethra. That was the operation I performed then, following McGill's directions; it is the operation that I have continued to perform since, it is the operation that is performed now generally, and it is one that I can thoroughly recommend for these cases. A certain amount of confusion, it is true, has been caused by erroneous description of what has been called the capsule of the gland. But it has been conclusively shown by Shattock and Wallace that the covering on the enucleated masses is a pathological product formed around those masses out of the surrrounding tissues by the way in which they press upon them and condense them in their growth. The larger and the more lobular the masses of which the enlarged prostate is composed the more easily can they be shelled out, because of this fictitious capsule which they form around them; and there can be no doubt that for this form of enlargement this method of operating will not only supersede all others but will do away with the treatment by habitual catheterisation for which these cases are by no means suited. Only if the prostate in addition to being enlarged from glandular over growth is in a state of intense congestion, this must be allowed to subside first under the influence of the constitutional treatment to which I have already alluded, and the patient must be warned that if the muscular coat of the bladder has been ruined already by catheterisation and cystitis, removal of the enlarged prostate cannot restore it, though it will help it by rendering its work more easy.

Wimpole-street, W.

A CASE OF CHRONIC INTUSSUSCEPTION; EXCISION OF 42 INCHES OF SMALL INTESTINE; RECOVERY.[1]

BY F. C. WALLIS, B.A., M.B., B.C. CANTAB., F.R.C.S. ENG.,

ASSISTANT SURGEON TO CHARING CROSS HOSPITAL; SURGEON TO THE METROPOLITAN HOSPITAL.

A HEALTHY looking married woman, aged 32 years, was admitted into Charing Cross Hospital on April 14th, 1903, suffering from intestinal colic. She was in perfect health until May, 1901. Previously to this she had never had a day's illness in her life. The bowels always acted with great regularity and aperients were rarely necessary. She had never suffered from diarrhœa. The present illness began in May, 1901, with a sudden onset of most acute pain in the abdomen (there was no cause for it as far as she knew). The pain was of a colicky character but was not sufficiently bad to make her take to bed until the end of the week when the attacks became more frequent and vomiting commenced. Food always excited the colic and vomiting always followed it. She described an attack as a "general turning-round-and-round feel in the stomach, followed quickly by vomiting." This attack lasted for three weeks and she was in Guy's Hospital for the latter part of it. After this she was perfectly well until August, 1901, when she had a similar attack and there was a third attack in September, 1901. These attacks resembled the first except that the bowels were obstinately constipated for three or four days. When the bowels acted she was much relieved and the attack would generally pass off. There was no constipation at the beginning of an attack but pain and vomiting preceded it for three or four days. After the third attack she continued well until June, 1902, when there was another attack, since when there had been many milder in degree but all similar in character to the first. She had never passed any blood or mucus in the motions. The abdomen never became swollen and pressure neither increased nor relieved the pain. No tumour had been felt. She was admitted into the medical ward of Charing Cross Hospital during one of these attacks of pain and was in for five days, leaving on April 18th, 1903, apparently quite well. She was re-admitted on April 22nd for another attack of pain, during which vomiting was more or less continuous; it was bile-stained but not offensive. The abdomen was lax and not tender (this condition existed during all these attacks). On the 25th an indefinite mass was felt below and to the left of the umbilicus.

It was decided that unless a distinct improvement took place in the next 24 hours an exploratory laparotomy should be performed. As the patient was no better—in fact, getting weak—I operated at 11 A.M. on the 25th. When the patient was under the anæsthetic a large freely moveable mass could be felt in the left umbilical region. The abdomen was opened in the mid-line below the umbilicus by an incision which was lengthened to five inches in all. The palpable mass was an intussusception involving small intestine only. The length of bowel involved amounted to three feet six inches. The proximal gut was materially distended. An unsuccessful attempt was made to reduce the invagination and enterectomy was decided upon. Whilst lifting the involved gut out of the abdomen the distal end tore like a piece of wet blotting-paper close to the end of the intussusception and it was noticed that this part of the bowel was much inflamed. The intestinal contents were expressed at either end and Lane's intestinal clamps were applied on healthy bowel. The bowel was divided first at the upper end and the mesentery was cut through parallel to the intestine, the vessels being clamped as they were cut. The intestine was divided at the lower end and the two ends were united with a Murphy's button. A few Lembert sutures were put in in addition and the cut edges of the mesentery were sewn together with silk sutures, the vessels being ligatured with silk also. Some hæmorrhage found its way between the layers of the mesentery. The parietal wound was closed by one row of separate fishing-gut sutures. The operation lasted for one hour. The patient stood it very well and her pulse was 120 at the end. One pint of beef-tea was given by the rectum. There was practically no shock from the operation.

The patient was nourished by rectal enemata only for two days; on the third day small quantities of plasmon and thick barley-water were given by the mouth and on this day the bowels acted twice, the motions being well formed. The food by the mouth was gradually increased and the rectal feeding was discontinued, the stitches were removed on the eighth day, and everything went very well indeed until May 15th (three weeks after the operation) when the patient had an attack of pain similar to those she had previously suffered from: paroxysmal colic with intervals free from pain. Chloroform was administered and on palpating the abdomen I could feel the button in what I thought was the descending colon. It was quite easily pushed down into the pelvis but it could not be reached by the rectum. No button was passed and the pains continued. On May 18th the button was seen by the x rays to lie on the outer side of the right rectus, two inches above the inlet of the pelvis. On the 19th I reopened the abdomen and found the button about four inches above the ileo-cæcal valve; it could not be passed on into the colon so I removed the button through a longitudinal incision which was sewn up transversely. From this second operation the patient made a perfect recovery and left the hospital quite well on June 10th. I saw her recently and she was in the best of health.

The following is the pathologist's description of the specimen: "No. 1223. Enteric intussusception in adult. 42 inches of small gut excised. A portion of small intestine, 67 centimetres (26½ inches) of which forms the outer

[2] THE LANCET, June 4th (p. 1229), 11th (p. 1287), and 18th (p. 1354), 1892.

[1] A paper read before the Clinical Society of London on Nov. 27th, 1903.

coat (intussuscipiens) of an intussusception which has been greatly reduced, a double layer 18 centimetres (seven and a quarter inches) now remaining invaginated. The apex of the intussusceptum shows considerable reddening and is thickened from inflammation and œdema. The returning sheath is greatly thickened. The indrawing of the mesentery sheath is well shown. The outer coat is considerably

Intussuscepted portion of gut removed.

dilated and somewhat irregularly thickened. Here and there congested vessels may be seen. Eight centimetres (three inches) from the lower end is an oval opening two centimetres in diameter which seems to have been torn as its edges are irregular; microscopically the gut near the orifice is in parts quite healthy, in others swollen and infiltrated with round cells."

When the intussusception was first exposed and before the mesentary was divided the apex of the intussuscepted part was close up to the inflamed part of intestine which tore apart when the intestine was lifted out of the abdomen—but after removing the intestine the intussusception slid back to its present position, although when *in situ* it was quite impossible to reduce it in the slightest degree.

The *contretemps* with the Murphy's button was unfortunate. It is the only time that I have ever had any trouble and I have used these buttons now in a large number of cases. It was due to the fact that I put in a button somewhat larger than the size generally used for small intestine. My reason for doing so was that the proximal end of the intestine was considerably distended and the slightly larger button made approximation easier. It did not occur to me at the time that there would be any difficulty in the passing of the button and ordinarily speaking I do not think that there would be any difficulty in its passage. In an urgent operation of this magnitude time was of the greatest consequence and I do not know any other means by which the two ends of the intestine could be so rapidly and securely brought together. The main part of the time taken (one hour) was spent in cleaning the skin of the abdomen, removing the intestine, tying a large number of vessels, and uniting the widely separated ends of the mesentery. The sewing in and clamping of the two ends of the button did not take more than five minutes.

Why the gut should have torn in the way it did was a matter of some speculation and a microscopical examination of the torn edge showed only inflammatory infiltration. I believe the softening of the intestine here was due to interference in the blood-supply and there is no doubt that perforation would have occurred at this spot very soon.

As to the cause of the intussusception there is nothing to show that it was due to anything but an irregular action in the muscular wall of the intestine. Cases of chronic intussusception are not uncommon but one such as this is, I think, worth recording. The points of interest are: (1) the length of time (over two years) which it lasted; (2) the excellent health of the woman between the attacks and, I am glad to say, since the operation; (3) the large amount of small intestine involved (most cases of chronic intussusception have to do with the large intestine); (4) the fact that no tumour was felt with any certainty until the patient was anæsthetised; and (5) there was no exciting cause such as growth, tumour, or ulceration which is commonly the starting point in cases of chronic intussusception.

Harley-street, W.

ADAPTATION AND COMPENSATION.[1]

BY G. A. GIBSON, M.D., D.SC., F.R.C.P. EDIN.,
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THE title which has been chosen for this communication may savour of diffuseness and it might have been better to qualify it in some way so as to denote its meaning more definitely. My intention is primarily to bring before the society some illustrations of adaptation and compensation and although certain generalisations will be inevitable, yet in so far as possible it will be my aim to avoid them. The choice of the subject has been somewhat fortuitous. When making a fresh study last winter of acromegaly and gigantism some very interesting appearances, only to be explained by compensatory processes, forced themselves upon my attention and turned my thoughts strongly in this direction—a direction in which a great deal of my previous work has lain. When looking about for some theme that might prove interesting to the society it therefore naturally occurred to me that the subject might not unprofitably occupy us during part of this evening.

Let me, by way of preface, bring out very shortly one or two points in regard to the adaptations which may be seen in acromegaly. The accompanying illustrations demonstrate in the most graphic fashion the enormous increase which occurs in the lower part of the face, and more particularly in the inferior maxilla. This is shown in the photographs taken from life, but the most interesting points are to be ascertained from the skulls of such patients after death. In the beautiful photographs reproduced in Figs. 1 and 2, kindly furnished by Professor D. J. Cunningham of Edinburgh, the enormous preponderance of the lower maxilla is clearly shown and a photograph of the vertex of the skull (Fig. 3) shows that the temporal ridge has risen greatly towards the vertex. Similarly, in Figs. 4 and 5, for which my thanks are due to Professor A. F. Dixon of Dublin, the huge size of the lower jaw is well shown, and in Fig. 6 the temporal ridge is even more distinctly brought out than in the other skull as vastly increased. Now there is only one possible explanation for these appearances. In consequence of the increased weight of the jaw the temporal muscle has more work to perform and it has therefore undergone hypertrophy. That this is the truth may easily be ascertained by comparing the head of a young child with that of acromegaly and it is still further proved when such a skull is contrasted even with the highest of the anthropoid apes, in which there is a direct ratio between the heavy jaw and the large temporal muscle.

In another direction most marvellous adaptations are to be found when we study congenital affections of the heart. The consideration of the changes which occur at the period of birth would prepare us for wonderful possibilities of adaptation. Let me, by way of example, cite one interesting fact which has been emphasised by Gérard.[2] Up to the moment of birth the diameter of the ductus arteriosus exceeds that of the pulmonary arteries, the difference, according to him, varying by one, two, or even five millimetres. By the eighth day the arterial duct is practically closed and the pulmonary arteries have rapidly increased to a diameter much exceeding that of the closed or closing duct. In the case of cardiac malformations we have a most

[1] A paper read before the Medical Society of London on Oct. 12th, 1903.

[2] Gazette des Hôpitaux, Paris, 1899, année lxxii., p. 178.

fertile field for the investigation of possibilities of modification and it is found that the adaptation is such as will compensate for defect without surpassing it. This has been very vividly brought before me recently in a most interesting example of congenital affection of the heart which occurred in the wards of my colleague, Dr. A. James, to whose kindness I am indebted for permission to refer to the subject and to show a picture of the heart (Fig. 7). It was an instance of one of the rarer malformations. The undefended space between the two ventricles was patent; the pulmonary artery was represented by a narrow band of fibrous tissue and the aorta supplied the right and left pulmonary arteries as well as its own proper branches. Notwithstanding these defects the patient, a boy, had lived to the age of 16 years. The heart showed a most beautiful retention of embryonic conditions as regards the musculature of the ventricles. They were as nearly as possible of equal thickness, the right, however, being slightly in excess of the left. The exact measurements were as follows: left ventricle, 17 millimetres; right ventricle, 19 millimetres; or respectively $\frac{1}{14}$ths and $\frac{1}{12}$ths of an inch. The reason for this is very obvious. Both ventricles had to overcome the same pressure and their thickness was therefore approximately identical. In well-marked contrast to this let me mention that in cases of permanency of the ductus arteriosus, where the channel of communication is, as it usually is, small, there is but little increase in the thickness of the right ventricle. The rise of pressure in the pulmonary artery being but slight there is little cause for any hypertrophy of the right ventricle. Assuredly this is an exquisite example of adaptation. Reference has been made to embryonic conditions. During ante-natal existence, when, in consequence of the arrangements then existing, both ventricles are exposed to almost similar pressure, the thickness of the ventricles is found to be practically equal. This is a subject which some years ago engaged my attention [3] and it may be well, by way of clinching the argument,

FIG. 1.

From a case of acromegaly.

FIG. 2.

From a case of acromegaly.

FIG. 3.

From a case of acromegaly.

FIG. 4.

From a case of acromegaly.

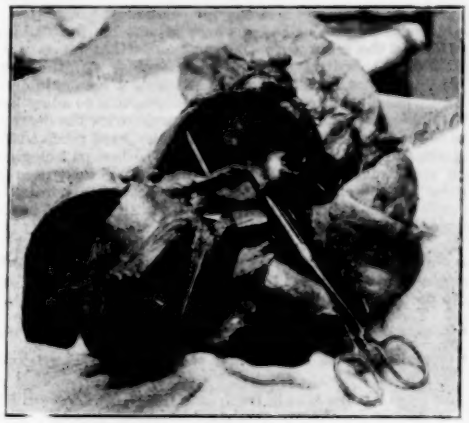
FIG. 5.

From a case of acromegaly.

FIG. 6.

From a case of acromegaly.

FIG. 7.



A case of congenital heart disease with patency of the interventricular septum, absence of the pulmonary artery, and great hypertrophy of the right ventricle.

[3] Verhandlungen des X. Internationalen Medicinischen Congresses

to show some sections of these fœtal hearts, two of which are reproduced in Fig. 8. In these the ventricular walls are of almost the same thickness. Such are a few outstanding subjects which have led my thoughts of late to run in the direction indicated by the title of this paper; they are only

FIG. 8.

Two sections of a fœtal heart in the fifth month, showing almost equal thickness of the two ventricles.

given by way of preface. My real object is to bring before the society certain modifications in the constituents of the blood, in the structure of the arteries, and in the condition of the heart which can only, it seems to me, be explained upon similar grounds.

In requesting your attention for a few minutes to some changes in the blood let me begin my observations with the remark that in what follows no special reference will be made to any alterations in the white blood corpuscles. Firmly believing in the great doctrine of phagocytosis as one of the most important explanations of immunity, and accustomed to seek and to find its appearances in numerous cases of disease, it is nevertheless no part of my intention this evening to deal with it in any of its bearings. The complexity and uncertainty still hovering around the leucocytes must necessarily render any attempt to summarise their functions at present extremely difficult.

When we turn from the leucocytes to the erythrocytes we are on more certain ground. A considerable amount of accurate information is now available as regards the life history of the red blood corpuscles, and this is more particularly the case in respect of the duration of their existence and their final destiny. The investigations of Quincke[4] and Hunter[5] have cleared up many points of uncertainty on such subjects and it would be most interesting to refer to them if time permitted. We must, however, proceed to our more immediate subject. An increase in the number of the erythrocytes beyond their normal is exceedingly common in many disturbances of the circulatory and respiratory apparatus. In fact, it may be stated that any interference with the oxygenating function is followed by more or less cyanosis, usually along with hyperglobulism. The amount of increase in the erythrocytes bears a more or less definite ratio to the extent of the disturbance of oxygenation. In cases of cyanosis from many causes such changes have engaged my attention. To summarise the conditions let me shortly state that in cyanosis the blood is of high specific gravity, often reaching 1075. The amount of hæmoglobin is considerably increased, commonly reaching such a figure as 120 per cent. The erythrocytes are often above 7,500 000, and the leucocytes, although not so commonly altered in number, not infrequently exceed 12,000. It is interesting to observe that the hæmoglobin index is almost invariably reduced. Let me here show you some photographs of the blood counts in such diverse conditions as pernicious anæmia (Fig. 9), perfect health (Fig. 10), and considerable cyanosis (Fig. 11), all in equal dilution—1 in 200. Many of these facts have been known for the last 20 years, since their first observation by Toeniessen.[6] Some years ago, frequent observation of these phenomena led me to suggest that the increase in the red corpuscles, as well as in the hæmoglobin, may be regarded as compensatory.[7] As such a conception can hardly be regarded in itself as explanatory, the consideration of the subject induced me to propose the hypothesis that from insufficient oxygenation the erythrocytes are not called upon to perform such active functions as in health and that, their functions being lessened, or, in other words, their tear and wear being reduced, the duration of their individual existence is increased. The number of the corpuscles may be expected in this way to be augmented until an equilibrium is produced between their production and destruction. In some later remarks upon this subject[8] it was candidly allowed that this hypothesis could only be seriously considered if the increase in the blood elements were proved to exist throughout the different divisions of the circulatory mechanism, arteries, capillaries, and veins.

Since the date of these earlier investigations abundant opportunity has been afforded me of further observations upon the subject and on several occasions it has been in my power to compare the condition of the blood in cyanosis as it occurs in arteries, capillaries, and veins. A number of the results were recently published[9] and from them you will allow me to choose one of the most striking instances.

A boy, aged 16 years, was lately under treatment in my wards for a group of symptoms which could only be explained by the diagnosis of mediastinal pericarditis. On admission in September, 1902, the boy was deeply cyanosed. His heart was but slightly enlarged and had no abnormal sounds. The pulse was of low pressure and manifested in the most distinct manner the features of the pulsus paradoxus. The patient had enormous enlargement of the liver and considerable increase in the size of the spleen, along with hydrothorax, ascites, anasarca, and albuminuria. The subcutaneous blood was frequently and regularly examined and showed an amount of hæmoglobin varying between 80 and 100 per cent., while the number of red corpuscles fluctuated between 8 000,000 and 8 800 000 per cubic millimetre and the number of white corpuscles oscillated between 5000 and 8500 per cubic millimetre. On Oct. 20th a drop of blood was obtained from a small twig of the temporal artery and another from a small tributary of the temporal vein in order to compare with the blood in the capillaries; the following results were obtained. Artery: hæmoglobin, 93 per cent.; erythrocytes, 7,000,000 per cubic millimetre; and leucocytes, 6875 per cubic millimetre. Capillary: hæmoglobin, 93 per cent.; erythrocytes, 8,500 000 per cubic millimetre; and leucocytes, 8500 per cubic millimetre. Vein: hæmoglobin, 115 per cent.; erythrocytes, 10,000,000; and leucocytes, 7400 per cubic millimetre.

In such a case as this it is extremely interesting to notice the general but not uniform increase, both in the number of erythrocytes and in the amount of hæmoglobin. It must be obvious that such an increase cannot be due to a simple blocking or backward pressure, as there would then be a very much greater difference between the numbers in the arteries and in the veins than at present exists. The difference, such as it is, may be accounted for by the transudation of fluid from the blood-vessels into the lymph vessels, which ought undoubtedly to exercise some influence in increasing the density of the blood returning in the venous system. The conclusion seems unavoidable that in such an instance as this there is an attempt on the part of nature to compensate for deficient aeration by an increase in the oxygen-carrying tissues. A consideration of the condition of the blood in pernicious anæmia strengthens me in this idea. Agreeing in the main with the theory of Hunter[10] as to the pathology of this disease my opinion coincides with the views of Laache[11] that in the increased amount of hæmoglobin in the individual erythrocytes nature is attempting to adapt herself to changed conditions and to compensate for the destruction of the blood corpuscles. These views have received the enthusiastic support of Hamilton and other pathologists. In a recent letter from Professor Hamilton[12] he writes as follows: "The efforts made at compensation in pernicious anæmia evidently point to a very delicate mechanism for keeping up the number of oxygen bearers."

The modifications in the amount of hæmoglobin and in the number of corpuscles at high altitudes are undoubtedly compensatory. It has been shown by many observers and more particularly by Bard and Curtillet[13] Viault,[14] Grawitz,[15]

Berlin, 1890, Band ii., S. 144; cf. Gibson and Gillespie, Edinburgh Medical Journal 1883, vol. xxxviii., p. 429.

[4] Deutsches Archiv für Klinische Medicin, Leipzig, 1880, Band xxv., S. 567; and 1880, Band xxvii., S. 193.

[5] Pernicious Anæmia, London, 1901, p. 123.

[6] Ueber Bluthörperchenzählung bei gesunden und kranken Menschen, 1881, S. 29.

[7] THE LANCET, vol. i., 1895, p. 24.

[8] Diseases of the Heart and Aorta, Edinburgh and London, 1898, p. 211.

[9] Proceedings of the Royal Society of Edinburgh, 1903, vol. xxiv., p. 393.

[10] Op. cit., p. 185.

[11] Die Anämie, Christiania, 1883, S. 224.

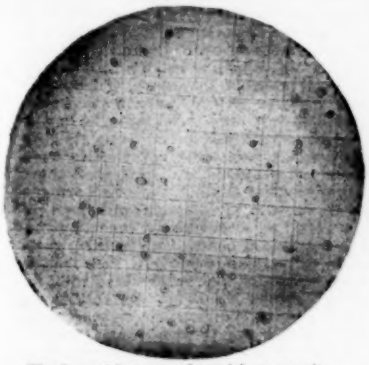
[12] Letter dated April 1st, 1903.

[13] Revue de Médecine, Paris, 1889, p. 993.

[14] Comptes Rendus de l'Académie des Sciences, Paris, 1890, tome cxi., p. 97.

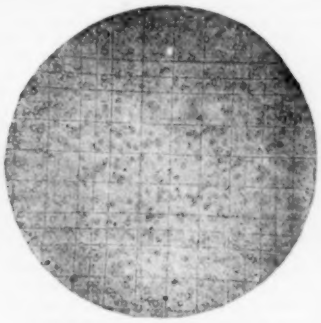
[15] Deutsches Archiv für Klinische Medicin, Leipzig, 1895, Band liv., S. 588.

FIG. 9.



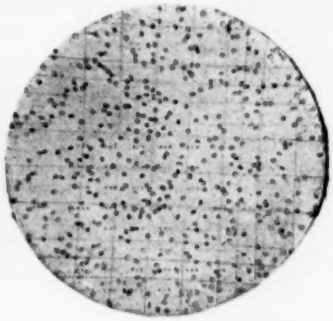
Blood count in a case of pernicious anæmia.

FIG. 10.



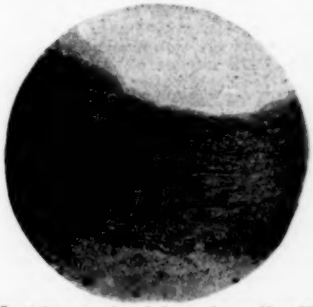
Blood count from a healthy man.

FIG. 11.



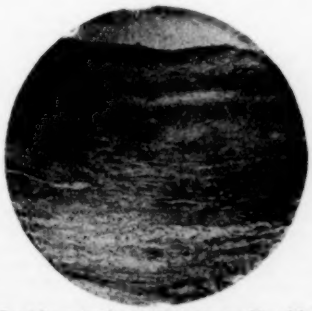
Blood count from a case of cyanosis.

FIG. 12.



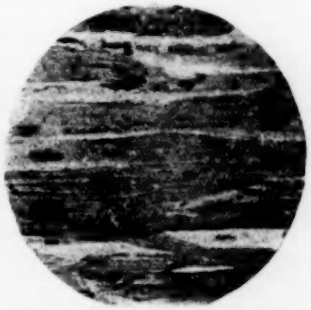
Great hypertrophy of the tunica media, with almost no change in the intima.

FIG. 13.



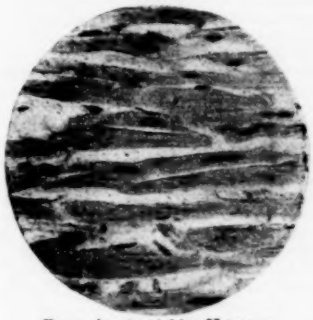
Great hypertrophy of the tunica media, with some thickening of the intima.

FIG. 14.



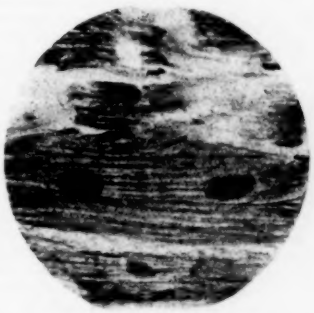
From a heart weighing 23 ounces.

FIG. 15.



From a heart weighing 23 ounces.

FIG. 16.

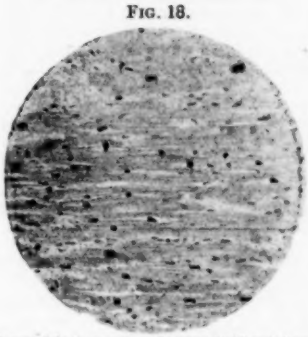


From a heart weighing 17 ounces.

FIG. 17.

Right ventricle from a case of congenital heart disease.

FIG. 18.

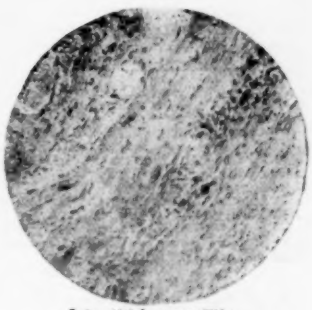


Left ventricle from a case of congenital heart disease.

FIG. 19.

Interstitial myocarditis.

FIG. 20.



Interstitial myocarditis.

Zuntz,[16] Vaquez,[17] and Mercier[18] that there is a distinct ratio between the number of the corpuscles and the height above the sea level at which the individual resides. The following table, given by Marie,[19] may be taken as a brief summary of the facts:—

—	Metres above sea.	Number of erythrocytes.
Christiania	0	4,970,000
Göttingen	148	5,225,000
Tubingen	314	5,322,000
Zürich	412	5,752,000
Görbersdorf	461	5,800,000
Reitboldsgrün	700	5,970,000
Arosa	1800	7,000,000
Cordillieras	4382	8,000,000

It has been generally considered that, with diminished atmospheric pressure, the interchange between the oxygen of the air and the blood corpuscles would be diminished and that in consequence the latter would adapt themselves to circumstances and increase in number by way of compensation. Quite recently, however, we have seen an instance of what Huxley[20] calls "the great tragedy of science—the slaying of a beautiful hypothesis by an ugly fact." In a paper lately published by Weinzirl[21] he has called in question these generally accepted statements and has asserted that the increase in the erythrocytes due to altitude is only temporary. Weinzirl has carried out some observations upon blood counts of rabbits at two different altitudes, one of 5000 and the other of 7000 feet above sea level, the general result of which is to show that while the rabbits after being kept in a warm atmosphere for some time underwent an increase in the red corpuscles on being transferred to a colder atmosphere at the same level, they lost a certain proportion of the erythrocytes on being moved up to the higher level. Such were the general results in six different animals, in only one of which was there an increase in the erythrocytes at a higher altitude. These results are at variance with all previous observations and they must be carefully repeated. That cold is an important factor in accounting for the blood changes at high altitudes cannot be doubted, and the comparative table of blood counts in summer and winter seasons which accompanies Weinzirl's paper strongly supports his contention as regards the influence of temperature.

Another set of phenomena, quite recently disclosed by the investigations of Vaquez,[22] Cabot,[23] McKeen,[24] Saundby and Russell,[25] and Osler,[26] must give us pause in our consideration of polycythæmia. These different observers have brought before us a series of cases of cyanosis which they assert to be of unknown origin. In every case the spleen was enlarged and in every case but that of Vaquez there was albuminuria. In most of the cases it is specifically stated that there was no cardiac affection, but in the case described by Saundby and Russell there was found to be a hypertrophy of the left ventricle on post-mortem examination, while in the case under the care of Dr. Stockton of Buffalo, which is given by Osler, it is mentioned that the full report of the post-mortem examination is not yet available, but that Dr. Lyon states the heart to have been about normal. The first thing which strikes the candid reader about these cases is that they were all of middle age, the youngest being 35 years and the oldest 53 years. All the rest were between 40 and 50 years of age. In the next place, every patient had albuminuria, with one possible exception, and a considerable proportion of the patients had noteworthy changes in blood pressure. It is not to be overlooked that we have no record of any microscopic examination of the heart muscle such as would be required before we can accept the statement that the hearts in these patients were normal. Careful consideration of the records of these cases has led me to the conclusion that it is highly probable they were instances of myocardial weakness. Many patients with symptoms closely resembling those described have been under my care, but in every one of them the conclusion was forced upon me that the cyanosis, enlarged spleen, and other appearances were secondary to the myocardial weakness, and in some of them the diagnosis was verified after death. Until further light has been thrown on the complex of symptoms described by the observers just mentioned we must suspend our judgment, but it seems to me that the blood changes are probably compensatory, the result of cardiac debility. This belief, indeed, appears to be somewhat similar to that held by Cabot[27] who writes as follows: "I do not believe that we are here dealing with a genuine plethora but with a venous congestion, the cause of which, however, remains a mystery."

Let us now turn, in the next place, to some illustrations of our theme as manifested by the vessels. It appears to be the general belief that the changes in the arteries are very largely to be summed up in a change of structure commonly known as sclerosis. That this is not the whole truth has, however, been often suspected and even Thoma, who may be regarded as the high priest of the cult, admits that there are other changes than a mere increase of fibrous tissue. He states, for example[28]: "Bei Zunahme der Wandspannung der Arterien nimmt, wie bereits früher berührt wurde und wie ich an einem anderen Orte genauer nachwies, die Tunica media an Dicke zu." All the vessels throughout the body are, in virtue of their contractile structure, endowed with the faculty of adapting themselves to their contents. Such changes are not merely to be observed in the arteries but also in the veins. In Raynaud's disease certain very interesting phenomena of this kind are to be observed. Barlow[29] has mentioned a moniliform or beaded appearance in the superficial veins in this disease and in one most interesting example, a young man who was in my own wards during the present year, the whole of the superficial veins of the body stood out like so many lengths of whipcord during the phase of spasm. That this takes place in the arteries is frankly admitted by everyone, and Russell[30] has called attention to the condition of exaggerated contraction, for which he has adopted the term "hypertonus." Of the existence of such frequent and prolonged increase of arterial spasm there can be no possible doubt. It may be produced by many different conditions, such as nervous influences and toxic states, into which it is impossible for me at present to enter.

The main point for us to consider is whether, in consequence of the altered lumen brought about by the hypertonic condition, there is any alteration in structure—such is the question which we must answer. Now, Savill some years ago brought before the British Medical Association some most interesting observations[31] upon this subject. He described the great increase in the thickness of the tunica media for which he introduced the term "arterial hypermyotrophy." His investigations have, since the appearance of that earlier paper, been much extended and have thrown much light on a difficult and obscure subject.[32] He is undoubtedly justified in regarding such facts as affording a beautiful illustration of adaptation and compensation. Russell is certainly right in his statement that a condition of excessive contraction may occur in arteries which are perfectly healthy, as well as in those which are apparently in a state of sclerosis. Admitting that this does take place, his further contention must be allowed that the idea of muscular degeneration and consequent inability on the part of the vessels to contract in adequate response to nerve or blood influences must be materially modified. The effect of such repeated and persistent contraction of the blood-vessels ought certainly to be an increase in the muscular coat of the arteries and this is what does occur. In the illustrations now brought before you this

[16] Berliner Klinische Wochenschrift, 1895, S. 748.
[17] Comptes Rendus de la Société de Biologie, Paris, 1895, Série 10, tome ii., p. 142.
[18] Archives de Physiologie, Paris, 1894, Série 5, tome vi., p. 769.
[19] Leçons de Clinique Médicale, Paris, 1896 p. 237
[20] Presidential address at the Liverpool meeting of the British Association Report of the Fiftieth Meeting of the British Association, London, 1871, p. 79.
[21] American Journal of the Medical Sciences, Philadelphia and New York, 1903, vol. cxxvi., p. 299.
[22] Bulletin Médical, Paris, 1892, tome vi., p. 849.
[23] Boston Medical and Surgical Journal, 1899, vol. cxli., p. 574, and 1900, vol. cxlii., p. 275.
[24] Ibid., 1901, vol. cxliv., p. 610.
[25] THE LANCET, vol. i., 1902, p. 515.
[26] American Journal of the Medical Sciences, Philadelphia and New York, 1903, vol. cxxvi., p. 187.
[27] Boston Medical and Surgical Journal, 1900, vol. cxlii., p. 178.
[28] Lehrbuch der Pathologischen Anatomie, I. Theil, S. 543. Stuttgart, 1894.
[29] A System of Medicine, London, 1899, vol. vi., p. 582.
[30] Transactions of the Medico-Chirurgical Society of Edinburgh, 1901, vol. xx., New Series, p. 132.
[31] Brit. Med. Jour., 1891, vol. ii., p. 324.
[32] Ibid., 1897, vol. i., p. 188.

hypertrophy may be seen. Fig. 12 shows great increase in the tunica media, with little change in the intima; Fig. 13 has more thickening of the latter. In asserting that such conditions of hypertrophy of the tunica media do take place, it is far from my intention to hold that it is the only vascular change. A truly sclerotic condition is extremely common, and this, too, in several different varieties. Such a change in the blood-vessels is undoubtedly produced by an increased growth of fibrous tissue. As stated by Thoma,[33] the alterations are as follows: diminution of elasticity, dilatation of vessel, and retardation of current, which last is the cause of a new formation of fibrous tissue in the intima.

An observer to whom we owe much as regards the investigation of these questions is Mott,[34] according to whom the vascular condition consists in "a local or general thickening of the arterial wall with loss of elasticity, occasioned mainly by fibrous overgrowth of the tunica intima, secondary and proportional to weakening of the muscular and elastic elements of the media." Into the points of relationship between a previous weakening of certain of the arterial coats and this compensatory overgrowth—the fibrous tissue—it is foreign to my purpose to enter, but it may not be out of place for me to express the view that while a hypertrophied condition of the media and a sclerotic condition of the intima may, and probably do, arise from intoxication, the nutrition in the former case must be better than in the latter and thus allow of the possibility of hypertrophy. Facts are not sufficient as yet to allow of any generalisations, but from many observations it seems to me that the vasa vasorum are in some way intimately connected with these two different processes. To this relationship between nutrition and fibrosis we must briefly advert when considering some of the changes in the heart now about to be referred to.

The last concrete examples to be brought before you belong to cardiac pathology. As is well known, when from any cause—and the factors universally recognised are legion—there is any necessity for increased exertion along with an adequate supply of nourishment the heart undergoes hypertrophy. The converse condition, atrophy, arises when from failing energy there is less demand for exertion and from waning nutrition there is less food for the heart. There are many questions still unanswered in regard to hypertrophy. The teaching of Cohnheim[35] that there is a primary or idiopathic hypertrophy is still sometimes echoed in the present time, but it is probable that there is no serious supporter of his views. In all the examples cited by Cohnheim there is, on careful investigation, found to be an increased amount of work, whether arising, as in exophthalmic goitre, from greater frequency of the heart, or, as in the instance of the beer-heart of South Germany, from an excessive quantity of fluid that has to be driven through the tissues as well as an augmented supply of food for the heart. It is certainly not going too far to assert that primary or idiopathic hypertrophy of the heart in the strict sense of the phrase is absolutely mythical.

Another point arising is connected with the mode of increase in the affected organ. Does it increase by an enlargement of the individual fibres or by an augmentation in the number of these fibres? Here the answer must be in the affirmative to both questions. And yet the absolute proof is somewhat difficult. The size of the different fibres in a healthy heart is exceedingly variable. This may be seen by comparison of Figs. 14 and 15, which are taken from two parts of the left ventricle of the same heart situated very near to one another. That there is an increase in the size of the individual fibres in hypertrophy is beyond doubt, and in Fig. 16 a fibre of great size is shown. On the other hand, a numerical increase, such as must occur in the gravid uterus, for instance, would certainly be expected in the hypertrophied heart, and the careful measurements of Zielonke[36] have rendered this to my mind absolutely unassailable. Yet it must be obvious that without the exercise of a patience as remarkable as rare this belief could hardly be affirmed to have reached the stage of proof. Is it possible that the different appearances observed vary according to the age of the individual in whom they occur and that we have here an illustration of the principle so clearly stated by Moore[37] in his recent paper on unsymmetrical kidney? According to his view the younger the individual the greater the increase in the number of the fibres—the older the individual the greater the increase in their size. Such is the meaning of his enunciation of "a general biological principle—viz., that a persistent demand for increased functional activity made on any structure during its developmental stage is met by a corresponding increase in the production of the functioning elements, whilst such happening after the cessation of development is met by an increase in the size of the individual elements." That this is not to be asserted without some reservation is, however, clear from a comparison of sections of the two ventricles in the case of congenital heart disease formerly referred to. In the right ventricle (Fig. 17) the fibres are decidedly larger than in the left (Fig. 18). Yet this hypertrophy must have commenced at an early period; we may indeed say that the embryonic condition persisted, with an equal growth of either ventricle.

It is very commonly held that when hypertrophy has reached a certain degree degeneration must infallibly follow. In this statement there is a certain amount of truth—just enough of truth to render it of dangerous plausibility. It has been asserted that when a certain stage is reached the hypertrophied heart is liable to fatty degeneration. This contention, which obtained the sanction of Cohnheim,[38] is, as Hamilton[39] observes, "a vast exaggeration." Abundant observation has convinced me that the assertion deserves to be condemned to the realms of oblivion. The hypertrophied heart is, as a rule, of healthy appearance, and on microscopical examination it does not show a trace of fatty degeneration. Only in hearts which have outlived their possibilities of nutrition and are undergoing dissolution is any fatty change to be seen.

While such are the facts as regards a supposed fatty metamorphosis in the hypertrophied heart it is far otherwise as regards the association of the process of hypertrophy with chronic interstitial myocarditis, or fibroid degeneration, as it is often called, of which several different stages were described and illustrated by me in a lecture delivered before the Medical Graduates' College.[40] When the supply of blood generally or locally is insufficient a chronic fibroid invasion takes place and this may or may not be an attendant on hypertrophy. This has been repeatedly shown by many authors and the fact, now thoroughly recognised, has again been lately investigated by Cowan.[41] The common appearances may be observed in Fig. 19, where a very great amount of increase of fibrous tissue is to be seen. But the new growth of fibrous tissue may greatly exceed such more ordinary appearances and in Fig. 20 an excessive degree of interstitial myocarditis may be observed. May we not in this see an example of the "law of parsimony"? While illustrating the "law of economy" in his eloquent address in the Physiological Section of the British Medical Association at the Oxford meeting of 1868 Rolleston[42] remarked: "Where by the employment, as in what is called 'histological substitution,' of a lowly organised or vitalised tissue, such as elastic tissue, she can spare herself the manufacture of such expensive structures as muscle, there nature adopts a line of practice which we call a law of parsimony." This principle, although primarily intended in elucidation of biological processes, is obviously of application to the results of pathological research.

It seems to me that an interesting parallel may be drawn between the arterial and cardiac changes which have been brought before you to-night. In one set of circumstances, with overwork but adequate nutrition, the arterial, like the cardiac, muscle fibres become enormously increased. In a different combination of conditions, in which increased work, along with indifferent nutrition or toxic states, takes place, the arterial walls, like the cardiac, undergo sclerosis. That this is preceded by dilatation of the lumen of the artery, as Thoma[43] believes, is as destitute of proof as would be the analogous statement that a dilatation of the heart is an invariable precursor of fibroid degeneration. Conversely, when less work is demanded of the heart it undergoes simple

[33] Op. cit., S. 298.
[34] A System of Medicine, vol. vi., London, 1899, p. 320.
[35] Lectures on General Pathology, New Sydenham Society's Translation, London, 1889, Section I., p. 65.
[36] Archiv für Pathologische Anatomie, Berlin, 1874, Band lxii., S. 29.
[37] Journal of Anatomy and Physiology, London, 1903, vol. xxxviii., p. 99.
[38] Op. cit., p. 47.
[39] Op. cit., vol. i., p. 650.
[40] The Clinical Journal, London, 1902, vol. xx., p. 113.
[41] Glasgow Medical Journal, 1902, vol. lvii., p. 269.
[42] Brit. Med. Jour., vol. ii., 1868, p. 155.
[43] Loc. cit.

atrophy. Many such instances cross the path of the pathological observer in different states of lessened demand. When along with such diminution of work there is at the same time interference with nutrition the condition of pigmentary atrophy is the common result. To this latter it would be foreign to this paper to allude, but of the former illustrations are to be found in Figs. 19 and 20.

A few general remarks upon hypertrophy may fitly conclude these observations. It is held by some observers, and particularly by Thoma,[45] that a hypertrophy may take place which is not functional in its origin. He cites in proof of this the fact that if one ovary or testis is removed in extreme youth the other undergoes an increase in size. Inasmuch as certain of the great functions of these organs have not begun to manifest themselves at such an early period he seems to regard them as inactive. Surely this is an extremely narrow view of the matter. From what we know of the glands it seems clear that each one of them produces an internal secretion which is of specific importance as regards the well being of the whole body. It is more than probable, nay, it is absolutely certain, that the ovary or testis is intimately concerned with the development of the sexual characteristics from the earliest period. Until comparatively recent times it used to be held that the sexual manifestations were not revealed until the time of puberty. This belief has now been shown to be erroneous, and the fact—now abundantly proved by the observations of Fehling,[45] Thomson,[46] and Merkel[47]—is that from an early period of fœtal life even the form of the pelvis is diverse in the two sexes.

Another important consideration strengthens me in the conception that hypertrophy of a non-functional origin is erroneous. Bradford[48] in his interesting Goulstonian lectures raised some important questions as to whether the remarkable results following excision of a portion of the kidney are due to compensatory growth or to other causes, and Murray[49] in the following series of lectures under the same foundation tried to answer the question with special reference to the thyroid gland. As his remarks are as succinct as they are lucid the best method of reference to them will be to quote them entirely. "If the compensating growth of the one lobe takes place simply in response to a call for more secretion to make good the loss of the other lobe no hypertrophy should take place if this want is fully supplied from other sources. This point may be tested by removing one lobe of the gland and giving thyroid secretion continuously for some time and then removing the other lobe for examination. If no changes indicating compensatory hypertrophy are found in the second lobe it goes far to show that the hypertrophy develops simply as the result of an insufficient amount of thyroid secretion being present in the blood. To test this point the right lobe and parathyroid were removed from a male bonnet monkey. For the next three weeks 12 minims of thyroid extract were given in the course of each week. Then as the animal became rather emaciated the quantity was reduced to half this amount for the next five weeks. Slight myxœdematous symptoms then appeared but they diminished on increasing the dose to 24 minims in the week; this was continued for two and a half weeks, when the animal died from dysentery. The left lobe was found to be pale in colour and only weighed 0·03 gramme. No parathyroid was found attached to it. Microscopical sections showed no signs of compensating hypertrophy even in its earliest stages. In another experiment the right lobe and parathyroid were removed and one minim per diem of thyroid extract was given by the mouth for 16 weeks and then the left lobe and parathyroid were removed. The right lobe with the parathyroid which was removed first weighed 0·3 gramme and was found to be abnormal in structure to start with, as it resembled a hypertrophied gland in structure. Similar appearances were found by Halsted in the thyroid gland of several healthy dogs. The occasional occurrence of such changes in apparently healthy animals is at present difficult to explain. The interesting point in this case is that after the prolonged interval of 16 weeks during which the extract was given the left lobe was found to be paler in colour and it weighed 0·25 gramme. The microscopical structure was normal and showed no signs of commencing compensatory hypertrophy. If this lobe was originally in the same condition as the right the treatment seems to have restored it to a normal condition and if not it at any rate showed no signs of compensating hypertrophy. As far as they go these experiments tend to show that if the proper amount of secretion is supplied after the removal of one lobe compensating changes do not take place in the other."

One more instance before concluding. In the philosophic remarks by John Thomson on defective coördination in utero as a probable factor in the production of congenital malformations he gives his opinion[50] against the occurrence of primary hypertrophy. In this thoughtful paper he states: "There are only two conditions that I can think of under which muscular hypertrophy seems to occur without antecedent overwork—namely, (*a*) the extraordinary hypertrophy of the uterus which takes place during pregnancy; and (*b*) congenital giantism, local or general, such as occurs in congenital hemi-hypertrophy." These, however, are really not examples of hypertrophy without antecedent overwork: the walls of the uterus, assuredly, during pregnancy undergo an enormous amount of overwork in resisting the stress of embryonic development, and any hypertrophy of muscles in conditions of giantism is in direct ratio to the increase of the structures upon which the muscles exert their force. The consideration of all these interesting results confirms me in the belief that a supposed non-functional hypertrophy is a baseless figment of the imagination.

It is a pleasant duty to express my thanks to Dr. T. Shennan of Edinburgh and Dr. J. M. Cowan of Glasgow for ready help in the preparation of this paper and also to acknowledge my obligations to Mr. Richard Muir of the University pathological department and to Mr. William Watson of the laboratory of the Royal College of Physicians for constant assistance in photographing the preparations employed in the work.

Edinburgh.

[45] Op. cit., S. 544.
[46] Archiv für Gynäkologie. Berlin, 1876. Band x., S. 1.
[47] Journal of Anatomy and Physiology, London, 1899, vol. xxxiii., p. 359.
[48] Anatomische Hefte, Wiesbaden, 1903, Band xx., S. 126.
[49] THE LANCET, vol. i. 1898, pp. 765, 843, and 916.
[50] THE LANCET, vol. i., 1899, pp. 667 and 747.

A CASE OF INVASION OF THE CAUDA EQUINA BY TUMOUR WITH DEMARCATION OF ALL THE SENSORY ROOT AREAS OF THE LOWER LIMBS.

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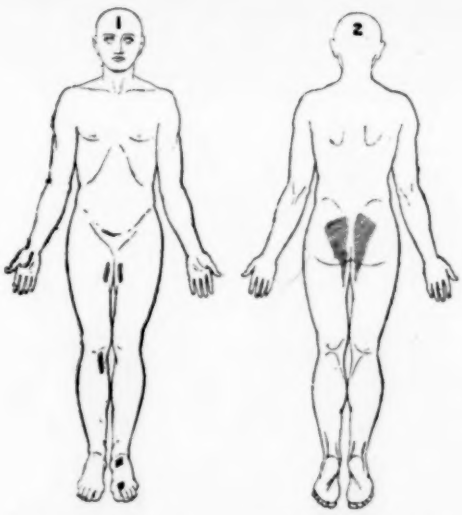
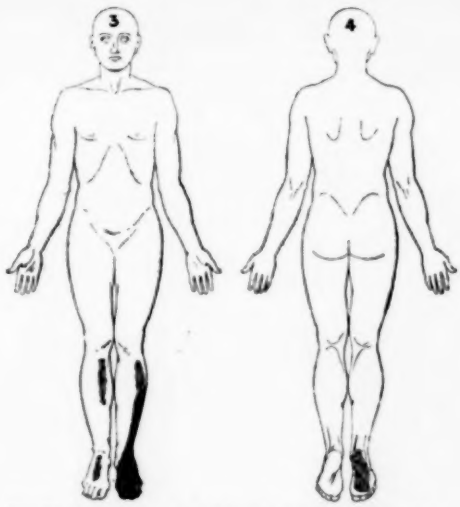
THE case here recorded is one which as resident assistant physician at St. Thomas's Hospital I had under daily observation for a period of nearly eight months and I was able to make a complete series of charts illustrating the progressive affection of sensation in the lower limbs. By the courtesy of Dr. J. F. Payne and Dr. H. W. G. Mackenzie, in whose ward the patient lay, I am able to publish the full details of the case which appears to be of exceptional interest in that it affords distinct evidence of the arrangement of all the sensory root areas which belong to the cauda equina.

The patient, a lad, aged 13 years, was admitted to St. Thomas's Hospital on Dec. 29th, 1899. He was transferred to an infirmary on August 18th, 1900, where he died a few weeks later. No necropsy was obtained. The boy was one of a family of 13 children, all of whom were living. His parents were healthy and there was neither history nor evidence of syphilis in the family. The paternal grandfather was alcoholic and died from phthisis. The patient had chicken-pox and measles before he was three years old but since then had always been a healthy, active, and intelligent boy. He was in the sixth standard at school. His mother dated the commencement of his illness from a visit to the swimming baths two months before his admission to hospital. At all events shortly after this he began to complain of inability to sit or to lie comfortably on account of pain in the lower part of his back. This pain gradually increased and for ten days before admission he had been screaming night and day and absolutely unable to sleep. The intensity

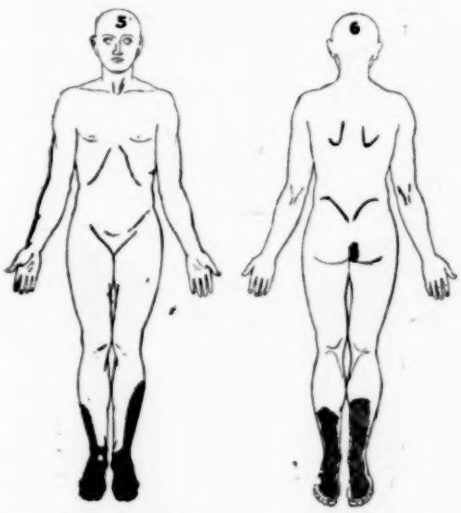
[50] Brit. Med. Jour., 1902, vol. ii., p. 678.



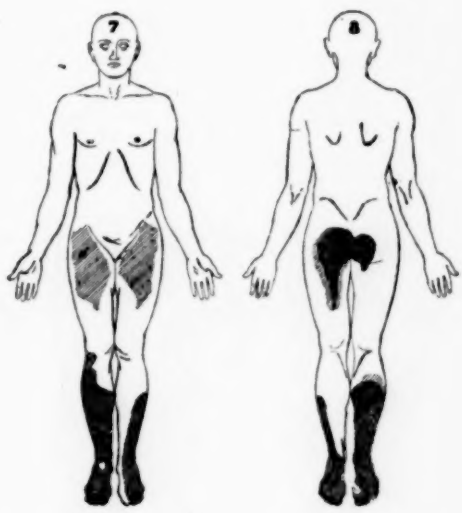
Jan. 2nd. The cremasteric reflexes were present, 1 and 2 L.* The knee-jerks were absent, 3 and 4 L. The plantar reflexes were absent but common sensation was present in the soles, 1 and 2 S. The muscles were wasting, especially the calves, 1 S.



Jan. 9th. The exact extent of the motor paralysis was doubtful. There were no knee-jerks and no plantar reflexes. The right cremasteric reflex was absent, 1 and 2 L. Retention of the urine persisted for several days, 11 and 12 D. and 1 L. (detrusor vesicæ). There was occasional incontinence of the fæces, ? 4 S. The sensory areas on the left side were 5 L. and part of 1 S.



Jan. 12th. Motor paralysis, by faradism, from 3 L. to 2 S. on the right and from 5 L. to 2 S. on the left. The reflexes were as before. The sensory areas 5 L. with indications of 1 S. and 5 S.



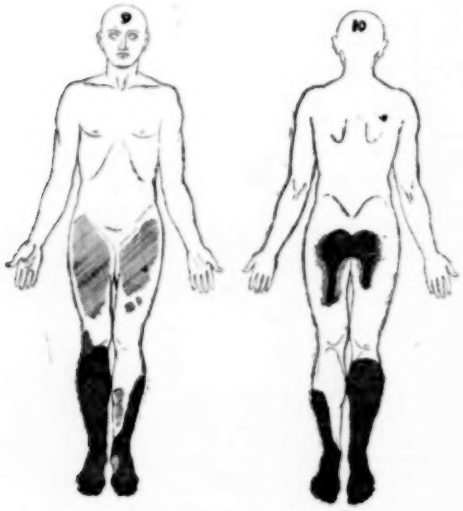
Jan. 13th. Motion and reflexes were as before. Sensory areas, right side, 4 and 5 L., 1 and 5 S. with indications of others; left side, 5 L. with 1, 5, and 4 S.

* L. = lumbar; D. = dorsal; S. = sacral.

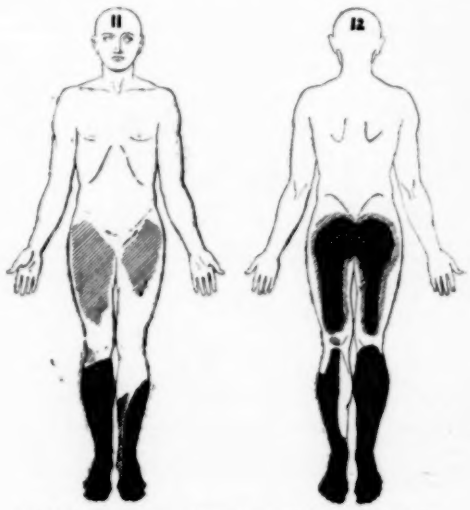
Hyperæsthesia. Partial anæsthesia. Complete anæsthesia.

of his suffering at times appeared to render him delirious and he had threatened to destroy himself. The pain was soon referred to the thighs and the knee joints and had led to his being treated by liniments for rheumatism—in fact, the skin of his lower extremities was excoriated by the frictions and stimulations to which it had been subjected.

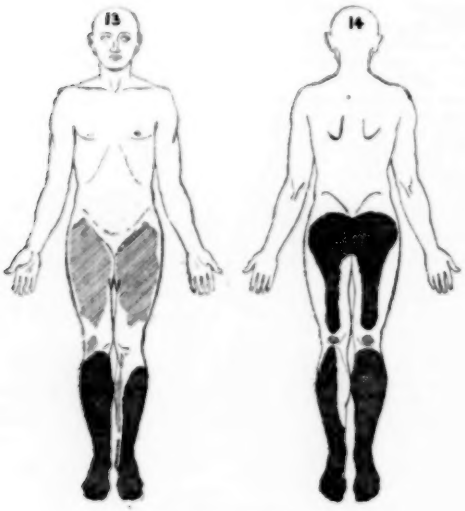
On admission the lad was tall for his age and of slender build. He was only comfortable when lying curled up with his back rounded and his chin flexed on his sternum. He complained that any extension of his head or any attempt to sit up without support caused acute pain in his legs. Notwithstanding this there was no tenderness, irregularity, or fixation of the spinal column, the whole being flexible and all the normal curves being easily reproduced. The lungs, the heart, the abdominal viscera, and the urine were quite normal. The ocular fundi were quite healthy and there was no evidence of any affection of the cranial nerves. The only abnormal signs discoverable were in connexion with the lower extremities. Although the legs did not appear to be wasted out of proportion to the rest of the body there was evident weakness both above and below the knees. The boy complained of intense pain which he referred to the front and the sides of the thighs and to the knee-joints. The latter were not swollen. Tactile, thermal, and painful stimuli were everywhere discriminated and accurately localised. There was full control over the sphincters. Of the reflexes the abdominal and cremasteric were present on both sides; the plantar were of normal flexor type, but



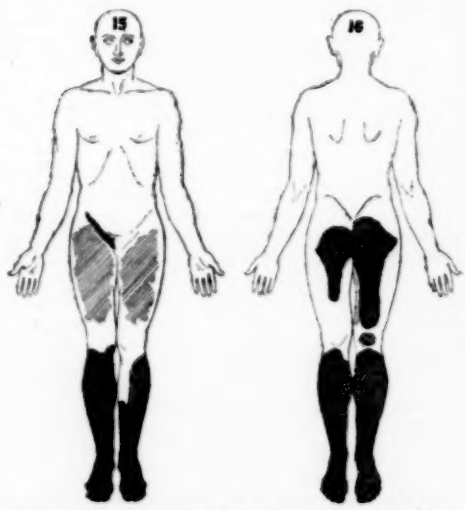
Jan. 15th. Motion and reflexes were as before. Sensation 5, 4, and part of 3 L., 1, 5, and 4 S.



Jan. 16th. Motor paralysis was present from 3 L. to 2 S. on the right and from 5 L. to 2 S. on the left. The reflexes were as before. Sensation 5, 4 (incomplete on left), and lower part 3 L. (latter on right), 1, 5, 4, 3, and possibly part of 2 S.



Jan. 17th. Similar to preceding.

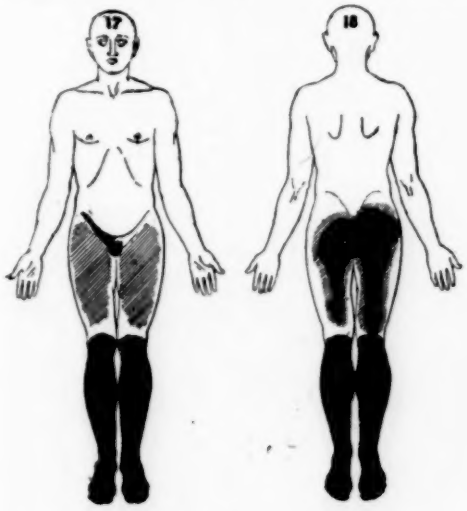


Jan. 18th. There was complete loss of power in the legs from 3 L. to 2 S. The reflexes were as before. Visceral paralysis was as before (detrusor vesicæ and possibly sphincter ani). Sensation 4 and 5 L. on both sides. 3 L. on the right and commencing on the left. 2 and 1 L. hyperæsthetic. D. 12 (L. 1?) on right only. 5, 4, 3, part of 2, and all 1 S. on the right; 5, 4, part of 3, and all 1 S. on left.

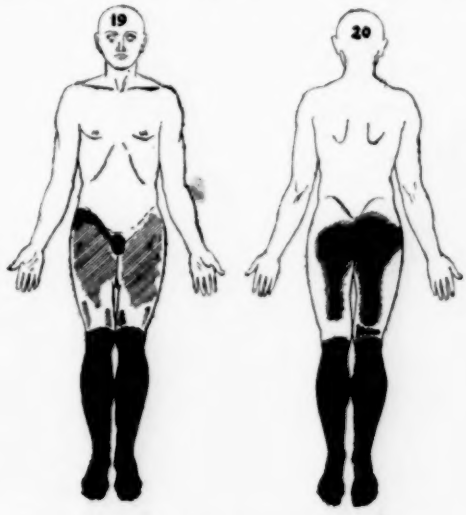
the knee-jerks were quite absent. The temperature was 101° F. on admission but fell in 24 hours to normal.

The patient continued to complain of the excruciating pain in his legs. He could not sleep and was constantly shrieking and making attempts to get out of bed in the hope of finding some posture in which the pain might be less. Areas of altered sensation soon became evident in the lower extremities and his subjective sensations of pain were found to be liable to paroxysmal exacerbations which were easily induced by movements of the thighs and legs or by pressure on the same parts.

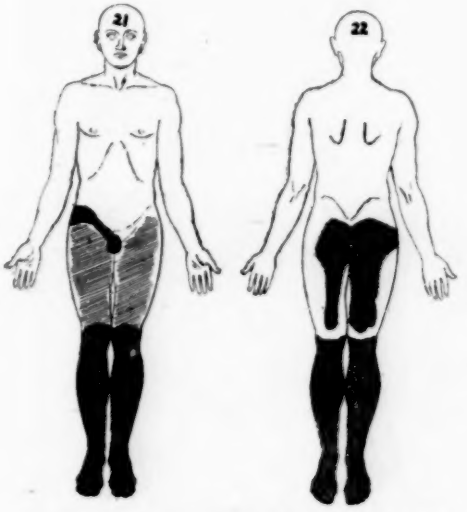
The distribution and the progressive march of the sensory abnormalities can better be appreciated by reference to the diagrams than by any verbal description. In mapping out the areas there depicted the same procedure was always adopted, the tactile sense being tested with the feathered end of a quill pen and the painful sense with its point. At first attempts were made to test the temperature sense but these were soon abandoned, as the areas did not differ appreciably from those obtained by the other method. If sensation were tested during the paroxysmal exacerbations of pain to which the boy was so subject anæsthesia was frequently found in areas where, in the intervals of freedom from pain, cutaneous sensation was present. These areas of transitory anæsthesia were ignored in the diagrams; they corresponded fairly accurately with the areas marked as hyperæsthetic. Zones of hyperæsthesia definitely surrounded the advancing sacral areas on the back of the thighs from the beginning.



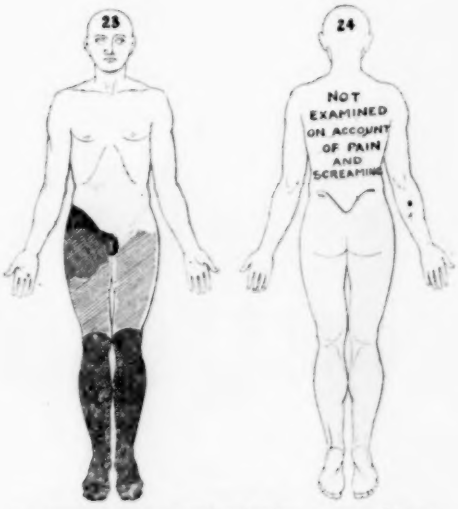
Jan. 22nd. Motion and reflexes were as before. Sensation, 3 L. further defined; also 12 D. on the right (or is it 1 L. P). The scrotum was partly anæsthetic, 3 S. On the left 2 S. probably almost complete.



Jan. 23rd. The penis and the scrotum were quite anæsthetic, 3 S. Motion and reflexes were as before.



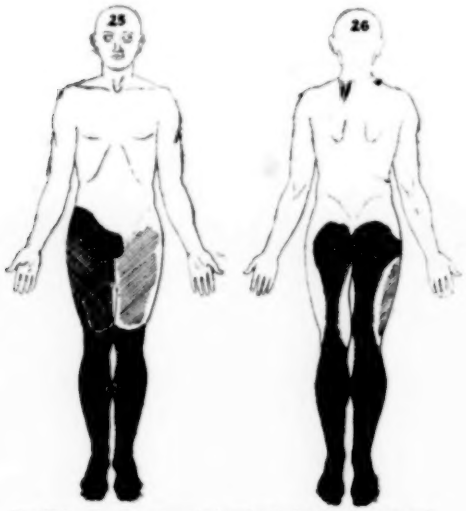
Jan. 24th. The additional eld on the inner side of the back of the right thigh probably belongs to 2 L., possibly to 3 S.



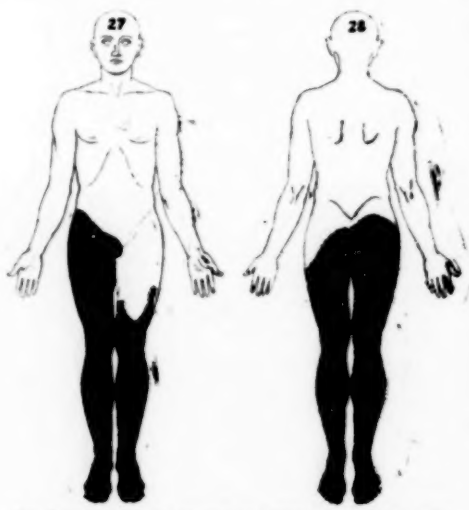
Jan. 27th. Motor paralysis by faradism was complete on both sides from 3 L. to 2 S. The left cremasteric reflex was not tested, so it is doubtful if it were still present. Sensory areas L. 2 and 3 appearing on the right side.

When the legs were first uncovered for testing sensation was always found to be more acute than after a few minutes' exposure to the cold. On some occasions after being tested intense itching was experienced in parts which had not yet become anæsthetic and on Jan. 23rd small red spots, not unlike the rose spots of typhoid fever, appeared at the points where the skin of the lowest part of the abdomen had been pricked. These spots persisted for several hours.

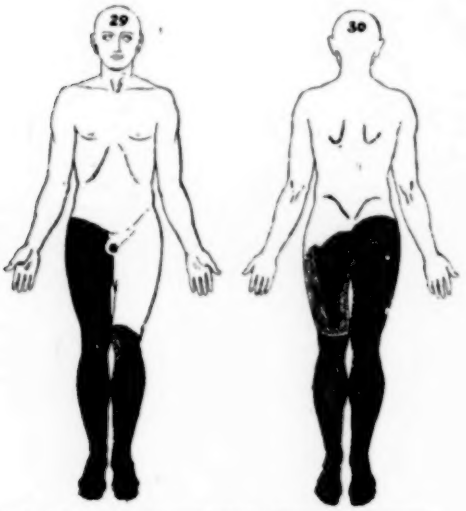
was still deficient and the loss became very evident after the use of aperients. By the 8th the right cremasteric reflex had disappeared and it was found that for two or three days past the boy had been assisting the emptying of his bladder by making firm pressure on his hypogastrium, a trick which he had discovered by accident. On the next day, after the completion of voluntary micturition, a catheter was passed and a further considerable quantity of urine was obtained.



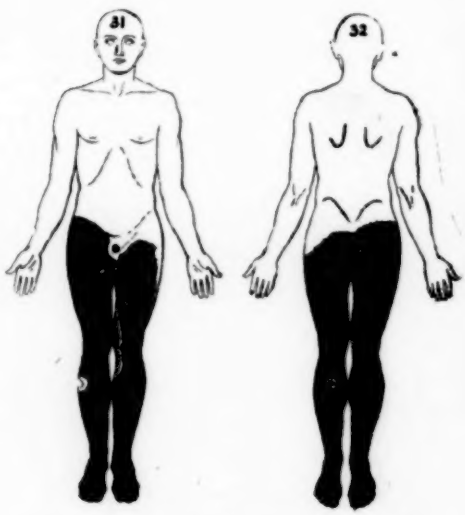
Jan. 29th. The left cremasteric reflex had at last disappeared, 1 and 2 L. Posteriorly on the left side 4 and 5 L. and all sacral fields are shown. No note was taken as to the condition of the perineum.



Jan. 31st. The condition was as before the operation. The lower part of 2 L. now appearing on the left.



Feb. 15th (15 days after exploration). There was an improvement in the lumbar areas 2 and 3 on the left. Note sensation at the root of the scrotum.



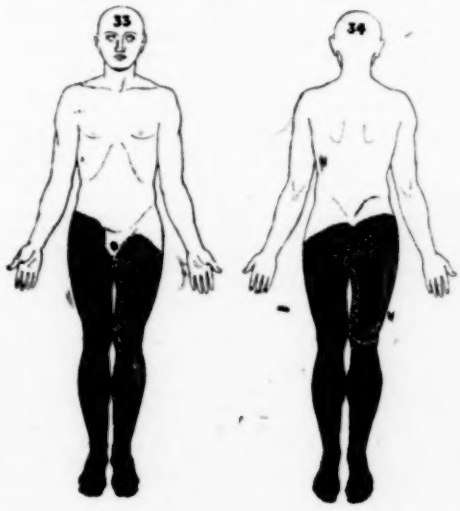
March 27th. There was some improvement in the muscles supplied by 3 and 4 L., but sensation in these areas was diminishing.

Five days after admission (Jan. 2nd) the plantar reflexes had both disappeared although the soles of the feet still retained common sensation. The loss of power in the lower limbs was progressive and the muscles were wasting rapidly. There was a loss of five-eighths of an inch in the circumferential measurements of the calves between Jan. 1st and 3rd. Occasional incontinence of fæces became apparent on Jan. 5th. Later the bowels became constipated but control

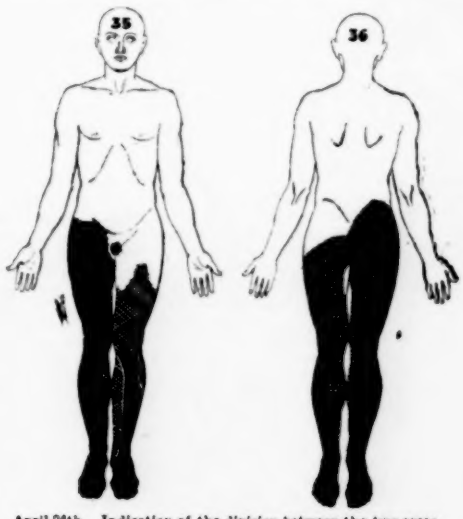
After this the atheter was used regularly. The feet had now become œdematous. Electrical examination of the muscles of the lower limbs proved impossible before the 11th on account of hyperæsthesia and screaming. It was not considered so urgent as to call for the administration of an anæsthetic. On the date mentioned the faradic excitability was greatly diminished in all the muscles of the right leg, including the ilio-psoas. In the left leg the

muscles below the knee and the hamstrings showed a similar reaction, but the muscles on the front of this thigh reacted normally. Loss of power in the legs was quite complete by the 18th, there being now no power to effect any movement at all. The œdema of the feet had quite subsided but a small sacral bedsore had developed and others were threatening on both heels, but the skin never actually broke in the latter situations. Later a small bedsore developed over the right great trochanter but this slightly on strong stimulation. About this date cystitis occurred and bladder washing was commenced; this was continued up to the time of transfer to the infirmary. The left cremasteric reflex, which had up to now persisted, finally disappeared between the 23rd and the 29th. The tenderness of the fronts of the thighs had increased to such an extent that the boy could not bear the weight of his dinner plate on them.

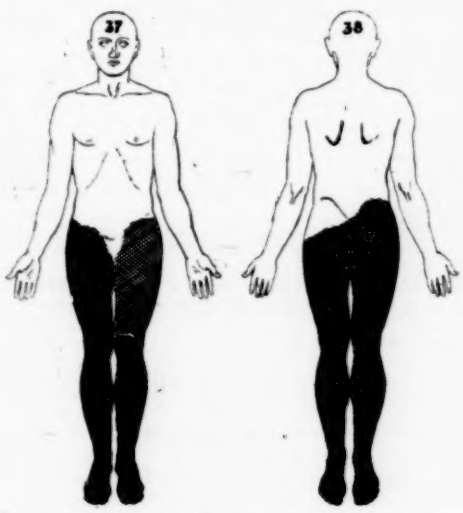
On Jan. 31st laminectomy was performed by the late



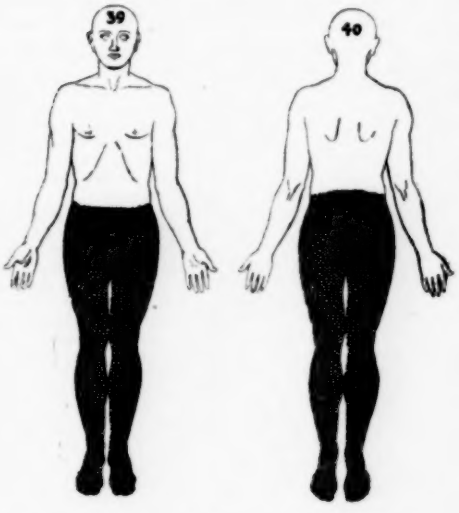
April 3rd. There was slight improvement in sensation below the left knee.



April 24th. Indication of the division between the two areas on the front of the left thigh, 1 and 2 L.



June 27th. Partial anæsthesia of 1 and 2 L. on the left.



August 17th. Final distribution of anæsthesia; in front up to the transverse line between the anterior superior iliac spines and behind higher than the iliac crests. Up to 11 D.

ultimately healed also. Pain still occurred in paroxysms in the thighs and the knees, being particularly severe in the outer side of the left thigh and in the knee of that side. The penis and the scrotum were quite anæsthetic by the 23rd. The electrical reactions were again tested on the 26th, when in addition to the muscles before mentioned, those on the front of the left thigh were found to have lost their faradic contractility entirely with the solitary exception of the tensor fasciæ femoris. This muscle still reacted

Mr. W. Anderson. The first, second, and third lumbar spines and arches were removed. The spinal theca was red, pulpy, and thickened. On opening the theca the cord itself presented a normal appearance. The presence of a vascular new growth, involving the meninges, was suspected and a portion of the theca was removed for microscopical examination. What was thought to be a small bead of pus was observed outside the dura mater but this was doubtful and no further collection of pus

could be found. Mr. S. G. Shattock reported that the microscopical examination of the piece of membrane removed revealed inflammatory changes with small areas of calcification. The operation was well borne and there was little or no shock. The wound soon soundly healed. Three weeks after the operation there was still no further control over the bladder and rectum. There was possibly a little power of voluntary movement of the muscles on the front of the left thigh, but with this exception the legs remained in a condition of flaccid paralysis with loss of all reflexes. The boy had been free from his pains for some days. Early in April some accession of power over the bladder and rectum was noted; it was no longer necessary to draw off the urine by the catheter but the washing out of the bladder was continued.

A rounded prominence was beginning to appear in the neighbourhood of the laminectomy scar. This steadily developed into a firm rounded swelling extending rather more to the right than to the left of the mid-line and finally reaching from the spine of the tenth dorsal vertebra downwards for six and a half inches and measuring eight and a half inches across. This tumour was firm but not bony; dilated veins coursed over its surface. Towards the end of June the boy began to complain of pain in his abdomen and examination revealed a smooth, fixed swelling of rounded outline deep in the right loin. This swelling was possibly the kidney pushed forwards by something behind it. The abdominal reflex was present on both sides and was very brisk. At this stage the control over the bladder and rectum was still partial and imperfect. Cystitis had almost disappeared. On August 17th, the day before transfer to the infirmary, anæsthesia to tactile, painful, and thermal stimuli was complete over both lower extremities. Its upper limit reached to the level of a line joining the two anterior superior iliac spines in front and extended a short distance above the iliac crests posteriorly.

During the whole period of observation the temperature varied but little from normal. Usually the evening temperature was slightly raised and on several occasions, at long intervals, it reached 101°.

As regards treatment, the pain was treated by opium, chloral, and hyoscyamus; the cystitis by lavage, urotropine, and benzoates. Iodide of potassium was for a time exhibited in doses of ten grains thrice daily but with no appreciable effect.

Remarks.—This case illustrates in a remarkable way the subdivision of the surface of the lower limb into its nerve root territories. The areas on the whole correspond to those indicated in the classical contributions which Head has made to this subject. They differ in some respects from the areas according to Thorburn and the resemblance to the diagrams published by Kocher and by Starr is not very close, save in the mutual relation of the sacral areas of the back of the thigh as shown by the last-mentioned observer.

Unfortunately no precise indication for numbering these areas according to their roots of supply is afforded by this case. The boy's death did not come to my knowledge in time to render possible a post-mortem examination, and if one had been made it is extremely doubtful if much information in the direction desired could have been obtained, since the disease had progressed considerably and the legs had long been completely paralysed and anæsthetic. The sensory and the motor defects due to a progressive lesion of any one root do not necessarily appear simultaneously. The loss of sensation is often delayed until after the appearance of paralysis or loss of reflex. Consequently, by the time the anæsthesia does appear a fresh root or even more than one fresh root may be showing motor symptoms and so at first sight may appear to be associated with the cutaneous area properly belonging to the root first involved. It seems that something of this sort happened in the case now reported for the loss of reflex or the paralytic phenomena commonly attributed to the lesion of a particular root almost invariably antedated the loss of sensation in the skin area usually allotted to the root in question. Consequently neither the distribution of the motor paralysis nor the loss of a particular reflex can be taken as exact guides to the roots which supply the co-existing anæsthetic areas. I have therefore contented myself with indicating the condition of reflexes and as far as possible the extent of the paralysis at the times the different areas appeared and have not attempted to correlate the two. The lesion was presumably a new growth either of the meninges or of the bone and caused definite root symptoms as opposed to cord symptoms. The first definite objective symptom was absence of both knee-jerks (3 and 4 L.). This was followed by loss of the plantar reflexes (1 and 2 S.), marked wasting of the calf muscles (1 S.) and then anæsthesia of the dorsum of the foot and the outer side of the leg below the knee (5 L.). We may therefore conclude that the lesion commenced in the neighbourhood of the lowest lumbar and uppermost sacral roots and spread thence so as to involve roots in both the upward and downward directions. Tracing the lumbar roots the indication seems pretty clear that the fifth lumbar area on the outer side of the leg occupies its lower two-thirds only (Figs. 3, 5, 7, and 9). The indication that the fourth lumbar area on the inner side ceases at a corresponding level is not quite so clear; it possibly extends higher and may even come over to the outside above the fifth area (Figs. 7, 8, 15, and 35). Another area, traced from below, evidently stops a short distance above the patella, partly encircling the limb below this level. We have here the upper limit of the third lumbar area in all probability (Figs. 17 to 23 and 29 left side). The upper limit of the second lumbar area is indicated as crossing the thigh near the junction of the upper and middle thirds (Figs. 23 and 35). The first lumbar area is interposed between the preceding and the area in the groin (Figs. 17, 19, 21, and 23). The first lumbar area extends well round the outer face of the thigh. The area in the groin above mentioned will then be that of the twelfth dorsal root. It extends round the outer side of the limb to join the sacral areas on the buttock (Figs. 18, 20, and 22).

Turning now to the sacral root areas represented on the posterior aspect of the limb, and counting from above downwards, it appears that the areas represented in Figs. 6 and 8 on the right side are probably areas of the fifth sacral nerve, whilst on the left in Figs. 8, 10, and 16 the fourth sacral area is also represented. The third sacral area is added to these in Figs. 12, 14, and 18, whilst Fig. 17 shows the first involvement of the penis and the scrotum. The anæsthesia of the penis and the scrotum, although apparently developed in association with the anæsthetic area in the right groin, no doubt is properly associated with the long strip reaching nearly to the back of the knee-joint on the back of the thigh and attributed to the third sacral root. Figs. 29, 31, 33, and 35 show an area limited to the junction of the scrotum with the groin distinct from the penis and possibly belonging to one of the lower dorsal roots.

The area supplied by the second sacral root is obscure. It probably corresponds to an area at the back of the knee-joint, seen commencing in Figs. 12, 14, 16, and 20, and perhaps running up the thigh on each side of the third sacral root area (hyperæsthetic zone in Fig. 18). The first sacral area is taken as represented on the sole of the foot and partly on the back of the leg between the fourth and fifth lumbar root areas. All the sacral areas are evidently anæsthetic in Fig. 26.

Devonshire-place, W.

ON ALBUMINURIA AS AN ACCOMPANIMENT OF DIABETES MELLITUS.

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(Continued from p. 1498.)

I HAVE spoken of albumin making its appearance in the urine at various periods in the course of diabetes and it may now be stated that having appeared whilst unsatisfactory conditions existed it may disappear on the establishment of a more favourable state as regards the diabetes. The following cases may be cited in support of this assertion.

CASE 9.—The patient was a man who was 51 years of age at the time of coming under observation on Sept. 30th, 1895. He had then been suffering from diabetes for about one and a half years and was eating brown bread and drinking milk and soda-water a little freely. His symptoms were severe and his urine contained 55·5 per 1000 of sugar with a small quantity of albumin. Under treatment the sugar fell and by Oct. 25th there was none. An irregular condition with respect to the albumin was noticed till Nov. 13th, which is the date on which its presence is recorded for the last time. The

patient, it may be stated, afterwards continued under observation till November, 1900.

CASE 10.—The patient was a man who was aged 44 years when first seen on Dec. 16th, 1902. Diabetes had then existed about two years. The patient was in a bad state and passed urine containing 45 per 1000 of sugar. A trace of albumin was also present and hyaline casts were found in the centrifuged specimen. A month later the sugar had disappeared, but with regard to albumin and casts the condition stood as before. In June and in August, 1903, no casts were discoverable and at the latter date, with scrutinous testing, there was no definite indication of albumin.

CASE 11.—This patient was a woman. My knowledge of her extends from February, 1902. She was then 70 years of age and had been the subject of diabetes for from 15 to 16 years. Latterly she had grown worse and was taking a wrong kind of bread, supplied by a local baker. Her urine contained 66 per 1000 of sugar. A small amount of albumin and granular casts were also present. The sugar soon fell to an insignificant quantity but the albumin and casts lingered. The entry for August 8th, 1902, records the presence of a trace of sugar, a trace of albumin, and granular casts. The dates upon which the urine was afterwards examined were Oct. 16th, 1902, and April 18th, May 15th, and Oct. 5th, 1903. Upon each occasion no albumin was found. No mention is made of microscopic examination till Oct. 5th, the date of the last interview, and then no casts were discoverable.

CASE 12.—This patient, a woman, I first saw on Nov. 8th, 1902. She was then 48 years of age and had been the subject of diabetes for two years. Her urine contained 50 per 1000 of sugar and a trace of albumin. On Nov. 12th the sugar had fallen to 18 per 1000, with the albumin continuing as before. The dates of the subsequent interviews were Nov. 20th and 27th and Dec. 4th and 16th, 1902, and Jan. 4th, 1903. On all these dates there was an absence of albumin. The sugar gradually fell and at the last interview it is recorded that there was none. It will be observed that in this case it was only just at the beginning that albumin was present. With the improvement that occurred in the diabetic condition it immediately disappeared. Such a speedy disappearance is, however, exceptional and, as has been shown by the cases previously cited, the albumin may persist long after the sugar has been controlled.

I take it that the cause of the consecutive albuminuria occurring in connexion with diabetes is a toxic influence of the sugar abnormally present in the blood upon the kidney. The sugar that is eliminated has previously existed in the circulatory system and ought not to have been there. With assimilation properly carried out sugar fails to show itself in the circulation as a result of the ingestion of carbohydrate food. With faulty carbohydrate assimilative power, however, existing the carbohydrate of the food passes straight into the circulation in the form of free sugar and in this form subsequently runs off in an unutilised state with the urine. There is thus an abnormal presence of sugar, standing in proportion to the amount of carbohydrate food ingested, in the contents of the circulation, and everything conspires to show that it is to this sugar that all the ill-effects of diabetes, certainly of the "alimentary" form of it, are attributable. If the sugar be got rid of from the urine, which may be read as meaning that the abnormality as regards sugar in the blood has disappeared, the whole of the symptoms of the disease vanish and remain absent as long as the state of the urine shows that things are being kept right. Virtually such a person is in the position of a healthy one with the exception that carbohydrate food will cause sugar to escape with the urine in a manner that does not occur in the healthy subject. Viewed in this way the sugar traversing the system in diabetes becomes an all-important factor in connexion with the phenomena of the disease. Not merely is it to be looked at as a food material which has failed in the proper place to have been put into a fit position to pass to utilisation, and is thence in transit through the system for escape, but as an agent possessing the power of exerting toxic effects within the body. It may be fittingly likened to alcohol in the position it holds in this respect and a close resemblance is traceable in many of the toxic effects produced. Similarly its effects may be compared to those of a mineral poison, such as lead, arsenic, &c., obtaining slow entry into the system and producing a structural damage of the tissues. Sugar, like these, tells hurtfully on the tissues, and if we give note to the nervous system closely concordant effects, in agreement also with those produced by alcohol, are found to be observable. Peripheral neuritis may be pointed to as a very common issue from the play of all these toxic agencies.

To the toxicity, then, of the sugar wrongly pervading the system I would ascribe the abnormality noticeable in connexion with the renal function. That the kidney should yield to the toxic influence in operation more readily in some cases than it does in others is not surprising, looking at what occurs in connexion with other toxic agents—particularly may be mentioned alcohol. Thus the variability which has been shown to present itself by the illustrative cases cited does not stand out of keeping with what is elsewhere noticeable.

Stress upon the kidney through the extra amount of work thrown upon it is often spoken of as the source of the albuminuria that may be encountered. In diabetes insipidus, however, it is not found that albuminuria becomes developed as it does in connexion with diabetes mellitus, although an enormous elimination of urine may be occurring for a great length of time, which we can hardly do otherwise than look upon as indicative of the existence of extensive strain upon the organ.

In cases where diabetes mellitus has existed for some time the effect upon the kidney may be such as to lead to a certain amount of textural change being perceptible in the form of more or less interstitial overgrowth and abnormality implicating the epithelial cells of the secreting tubules. Frerichs and Ehrlich comment upon the occurrence of a glycogenic degeneration of the epithelium of Henle's tubules as a result of diabetes and say that the cells may become packed with an accumulation of glycogen.

As yet I have not referred to the special condition met with just prior to, and at the time of, the occurrence of diabetic coma. It has been for some time known that with the advent of diabetic coma albuminuria, attended with a profuse discharge of casts, becomes encountered as a concomitant phenomenon. The discharge of casts may be such as to give rise to a light fluffy deposit, forming a conspicuous settlement of sufficient amount to prevent escape from attention. The deposit is virtually a sediment of casts possessing a somewhat characteristic microscopic appearance. They are mostly short and wide and often at their ends look as if broken off. They have a very distinct contour and are usually of a more or less highly granular structure. The deposit is of diagnostic value, foreshadowing as it does the supervention of the coma. Whether casts have been discoverable or not previously, it is the sudden onset of an escape of casts sufficient to form a visible deposit which is predictive of danger. Albumin does not stand in proportion to the casts. Ordinarily the amount present is not large.

With the condition of urine described the kidney gives strongly marked evidence of being the seat of morbid change. The acetone series of products which constitute the source of the coma evidently exert a pernicious action upon the organ. It cannot be doubted that through the toxic influence of sugar alone the kidney may become damaged. As has been shown, the presence of albumin in the urine may ordinarily be expected sooner or later to occur even in "alimentary" diabetes if the disease has not been kept satisfactorily under control. When the disease has passed into the "composite" type and the acetone series of products are associated with the sugar, experience shows that the proneness to the appearance of albumin is greatly increased, a circumstance which is not to be wondered at seeing that there is now an additional toxic influence at work. At the time of the onset of coma the accumulation of oxybutyric and diacetic acids is such as to suffice to throw the whole mechanism of the body out of working order, and in these circumstances it is not surprising that the kidney should give evidence of being affected to the extent that is noticeable.

The appearances that are found in the kidney where death has taken place from diabetic coma correspond with those that are produced by a renal irritant poison. They are thus described in an article by Dr. R. Maguire on Albuminuria in Diabetes.[1] He says: "On microscopic examination I found the glomeruli intact but the epithelium of the convoluted tubes was greatly swollen, in some parts hyaline, in others appearing as a confused granular mass which was very difficult to stain and which showed very few nuclei. In many parts, too, the epithelium was detached from the walls of the tube." Ebstein had previously spoken

[1] Brit. Med. Jour., vol. ii., 1886.

of necrosis of the epithelium lining the convoluted tubes and the loops of Henle as an effect of the condition existing in diabetic coma.

From the facts before us it is evident that the kidney becomes distinctly and profoundly damaged as a concomitant phenomenon of the condition existing in connexion with diabetic coma. The following cases give a representation of the clinical features belonging to the urine associated with the supervention of the coma.

CASE 13.—The patient was a woman, aged 67 years, when she became the subject of diabetes in 1898. Her brother had suffered from the same complaint. The disease set in with a sharp onset but was afterwards easily kept under control by diet. It remained until just prior to death of the "alimentary" type, but a satisfactory condition was not always found to be maintained by the patient. In November, 1901, she took cold which developed into a rather severe bronchial attack with myalgia affecting the neck and shoulders and giving rise to great distress. Her urine, which had previously been free from albumin, now contained a trace, and afterwards diacetic acid and acetone were present with a considerable amount of sugar. On Dec. 9th the urine contained 45 per 1000 of sugar by the indication of copper reduction and 38 per 1000 by the polarimeter, which showed the presence of a certain amount of oxybutyric acid. The appropriate tests also showed that diacetic acid and acetone were present. A slight amount of albumin was discoverable and microscopic examination of the centrifuged urine revealed an immense number of granular casts with sharp boundaries and for the most part short and wide. Knowledge of the above-mentioned particulars had been obtained before visiting the patient and I was expecting to find that signs would be presented of the onset of coma. These in reality were very distinctly noticeable. The patient was in a moderately advanced stage of diabetic coma and died on the following day.

CASE 14.—The patient was a man, aged 52 years. I first saw him on Oct. 3rd, 1900. His diabetes had only recently set in and his symptoms were of a severe character. He was taking brown bread and a large quantity of milk. His urine contained 71 per 1000 of sugar. In 12 days' time the urine became free from sugar and remained so till the following December, notwithstanding even that three ounces of ordinary wheaten bread per diem were being taken for a short time previously. An unfavourable change now pretty suddenly set in. The sugar returned and for a time went on increasing and the ferric chloride test showed that diacetic acid had become present which at no time before had been the case. Subsequently some reduction of the sugar occurred and a certain amount of general improvement was noticeable, but this was the most that was observed. On Feb. 28th, 1901, the sugar stood at 27 per 1000; there was, as throughout previously, no albumin and only a slight ferric chloride reaction was obtained. The patient was next seen on March 21st. He had now lost ground considerably in every way. His weight had dropped to the extent of from six to seven pounds. His urine contained 43 per 1000 of sugar and gave a traceable indication of the presence of albumin, together with a strong ferric chloride reaction. Microscopic examination revealed numerous fragments of granular and hyaline casts. No signs of diabetic coma had as yet appeared but coma speedily afterwards set in and death took place on the 23rd.

CASE 15.—This patient, a man, I saw in consultation with Dr. J. Lees of Brixton on June 12th, 1902. He was 52 years of age and had been the subject of diabetes for seven years. He had about a fortnight previously taken a chill upon which pleurisy followed. Whilst progressing satisfactorily he imprudently got up and exposed himself to conditions which threw him into a serious state. It was at this time that I saw him. There were signs of incipient coma attended with the "air hunger" character of breathing belonging to it. The urine passed just previously to my visit contained 41 per 1000 of sugar and reacted, but not very strongly, with the tests for diacetic acid and acetone. There was a slight amount of albumin and a quantity of fluffy deposit settled out which consisted almost entirely of granular and hyaline casts. The shedding of these casts by the kidney was a strikingly prominent feature and yet associated with it there was only a comparatively insignificant discharge of albumin. The patient died on the day after I saw him.

It remains for me to speak of the bearings of alcohol on the albuminuria occurring as an accompaniment of diabetes. I have already stated that the sugar traversing the system to become eliminated with the urine may be regarded, by virtue of its toxicity, as the source of the various ill effects encountered in the uncomplicated or "alimentary" form of diabetes. I have also alluded to the correspondence in certain respects noticeable in the character of the deleterious results produced within the organism by sugar and alcohol, and it is left for me to say that, under the excessive use of alcohol, the damage supervening in diabetes becomes greatly intensified. Experience shows that where the toxic influence of alcohol has play in association with diabetes the condition is much aggravated and if the situation lasts on the progress of the disease is greatly accelerated. Renal damage has been shown frequently to attend diabetes, but it may with much greater certainty be expected to occur if there should happen to be the contributing influence of alcohol likewise in operation. Peripheral neuritis arises both from the effects of alcohol and of diabetes, and from the evidence before us its development in the diabetic is without doubt much promoted by the intemperate use of alcohol. In connexion with the point under consideration I will cite the following cases.

CASE 16.—The patient was a man, aged 48 years when first seen on Jan. 21st, 1890. He had then been suffering from diabetes for nine months and was upon nearly the fully restricted diet for the complaint. His urine contained 9 per 1000 of sugar and was free from albumin. On the fully restricted diet his urine became free from sugar in two days and during the succeeding months remained in this state. In June evidence was afforded of returning assimilative power by loss of weight and a general feeling of weakness and depression.

I may perhaps be permitted to comment on this point and to state that I am often coming across in these circumstances the complaint by the patient of feeling low, weak, and dejected, with an empty sinking sensation in the epigastrium—a sensation as of something wanting, which I take to arise from the existence of a real want within the system. As long as carbohydrate cannot be assimilated it cannot be wanted by the system, and whilst the exclusion of carbohydrate food is needed to keep the urine free from sugar—in other words, whilst carbohydrate food would fail to be assimilated—no loss of weight occurs and no epigastric uneasiness attributable to the existence of a want in the system is experienced from the restricted diet. As soon, however, as carbohydrate assimilative power becomes restored carbohydrate food is proportionately wanted and if the system is not supplied with it the expression of want is manifested in the same manner as it is in the healthy person when food is cut off that is wanted. The precise mechanism in operation by which these phenomena are brought about cannot, it must be admitted, be explained, but everyone is acquainted with the results that are produced by cutting off food that the system can utilise and is therefore in need of. The fact of the phenomena referred to becoming observable in the diabetic shows a returning approach to the natural state and properly to meet the requirements an advance in the supply of carbohydrate should be made *pari passu* with the advancing return of assimilative power the signs of which are given by the information derivable from the weight and bodily feelings conjoined with a knowledge of the state of the urine.

Upon the strength of the signs of returning assimilative power that were presented, a little carbohydrate food in the form of ordinary bread was allowed. Two ounces per diem was the quantity in this case commenced with and upon it the urine remained in a sugar-free state and continued so after successive steps of increase till six ounces were reached, at which point the patient was advised to stop. This was in April, 1891, and throughout the remainder of the year and also when the urine was examined in 1892 there was an absence of sugar. In the early part of 1893, presumably as a result of dietetic deviation, some sugar reappeared and the allowance of bread had to be diminished and the ground to be retraced. A certain amount of irregularity, however, in the state of the urine was subsequently met with attributable to transgressions from time to time in diet. In this way matters proceeded till December, 1900, when a short time was passed in London in the society of friends whom he joined in a spell of alcoholic dissipation. His urine now contained a large amount of sugar conjoined with diacetic acid, which had not been noticed before, and a slight amount of albumin. In the following May the sugar

was much reduced and there was a freedom from diacetic acid and albumin. The patient had learnt to realise the necessity of giving scrupulous attention to his mode of life and I note that at the last interview in June, 1903, his urine only contained traces of sugar and that it was otherwise in a perfectly normal state.

CASE 17.—In the case of this patient, a man, there was a strong family history of diabetes on the mother's side. I first saw him in April, 1893. He was then 39 years of age. Sugar had just been recognised in his urine through examination for life assurance. The case to begin with was a mild one and the sugar at first found disappeared under the strict diet accompanied with an allowance of six ounces of ordinary bread per diem. Till the early part of 1896 the urine kept free from sugar. In July, 1894, owing to a fall in weight having set in, the bread was raised to eight ounces which immediately stopped the fall and led to an increase. A further advance in the bread, with the allowance of some potato, was found to be tolerated and it was while the case was progressing in this way that the return of sugar occurred. There was evidence at this period that too much whisky was being taken and as time passed on the habit grew. Matters thus proceeded, the urine sometimes containing a certain amount of sugar and at other times none, till 1900, when a sort of climax was reached. The patient was now giving himself up to whisky-drinking to a highly pernicious extent. Previously his urine had been free from albumin and diacetic acid. In October, 1900, it contained both, with 34 per 1000 of sugar. In March, 1901, granular casts were in addition recognised, and in the following October, on account of the marked urobilin colour presented, attention was given to the liver and it was found that it extended down to from three to four inches below the margin line of the ribs. I should like for a moment to direct attention to the assistance derivable from the observance of this urobilin colour in connexion with alcoholism and the liver, and to say that it has often led me to examine the liver and, meeting with enlargement, to draw out information which probably would have escaped being spontaneously supplied by the patient. Through the summer of 1901 a little abatement of the unsatisfactory condition that had been noticed occurred, but at the interview on Oct. 9th a worse state than ever was met with. The sugar stood higher and diacetic acid, albumin, and granular and hyaline casts were all found to have returned. The patient, who was feeling bodily ill and rapidly losing weight, now took alarm and resolved to pull in energetically both with respect to food and drink. The result was that on Nov. 27th the urine contained only a slight amount of sugar and gave only a traceable indication of the presence of diacetic acid and albumin. In the entry for Jan. 10th, 1902, an absence of sugar, diacetic acid, albumin, and casts is recorded. The general health had much improved and the liver was no longer to be felt. On March 7th and on May 9th the presence in the urine of a slight amount of sugar constituted the only abnormality observed, but the end of the turn of improvement that had occurred was now reached. The power to refrain from whisky no longer held out and at the next interview on July 4th sugar, diacetic acid, albumin, and casts had all returned in notable amount and the liver was again to be felt extending below the ribs. On afterwards substituting bitter ale for whisky a renewed start in the direction of improvement occurred. Diacetic acid was for a time lost and upon one occasion, May 7th, 1903, no albumin was to be found. Finally, however, the whisky temptation was too strong to be overcome. The patient averred that he had tried to do the right thing but could not tell me that he had succeeded. His associates drew him from his resolve to keep to the right course. His last visit to me was at the beginning of August and at the end of the month a letter reached me from his son stating that death had taken place somewhat suddenly and that the cause given in the certificate was acute bronchitis and heart failure.

The above cases suffice to illustrate the effect of the excessive use of alcohol in connexion with diabetes. There are no grounds for concluding that the temperate use of alcohol is prejudicial; indeed, my experience leads me to say that I consider it beneficial, but taken in excess there can be no doubt that it seriously aggravates the wrong state accompanying diabetes and in the damage inflicted throughout the system the kidney gives evidence of markedly participating.

It will be seen from what has been stated that the albuminuria which occurs in connexion with diabetes may exist for a long time without leading to the production of any symptomatic indication of its presence. The condition, therefore, is not to be looked upon as affording ground for apprehension in the same manner as when occurring under other circumstances. It is evident that albumin and casts have a very different signification according to the condition with which they are associated. Experience shows that even apart from diabetes they are with striking frequency come across in persons of advanced age presenting nothing to suggest the existence of renal mischief. They may, it is true, be the inceptive of something that may assume later on a more developed form, but, on the other hand, time may pass away and signs fail to appear of any further development. Caution under the circumstances is needed in framing an opinion regarding the future, and it is only by looking at the case in the broadest manner possible that a trustworthy conclusion can be arrived at.

Grosvenor-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF PERFORATED GASTRIC ULCER FOLLOWED BY HEPATIC ABSCESS.

BY H. HOLLIS, M.D. CANTAB.

THE patient, a female, aged 24 years, who had no important history of stomach trouble, fell from her bicycle and hurt her "chest" at the end of August, 1903. On Sept. 6th she ate her usual breakfast but only had French beans for dinner. In the evening, after walking for a quarter of a mile, she was sick and brought up a small quantity of blood, and was sick again after some brandy had been given. She was seen half an hour after the first attack of vomiting and being in a state of collapse was removed to the cottage hospital. There was great pain in the epigastrium, the face was blanched, breathing was thoracic, the pulse was 120, the abdomen was retracted and hard, and liver dulness was absent. Mr. W. E. Audland and Dr. W. I. Watson agreed with me that the patient probably had a perforation of the stomach. Four hours after the initial attack her abdomen was opened and a hole one-third of an inch in diameter was soon found in the centre of a roughly quadrilateral, greyish, sloughy-looking patch an inch long and three-quarters of an inch broad situated on the anterior of the smaller curvature of the stomach. The patch was inverted, the stomach wall was sewn over it, and the abdomen, which contained a quantity of greenish fluid and several partly digested French beans, was thoroughly washed out. After the operation there was no sickness; the temperature was normal thirty hours after and it continued so for nine days. On Sept. 13th the wound was dressed and all the stitches were removed. On the 15th the temperature began to rise and the pulse-rate to quicken without any obvious cause or any discomfort. After a day or two there was thought to be increased dulness above the liver. The temperature now varied from 99° to 105° F. and on five days between Sept. 15th and Oct. 9th she had a rigor. On Sept. 23rd, 27th, and 30th a needle was put in the dull patch with negative result. On Oct. 2nd there was some hardness in the abdomen below the ensiform cartilage, so the upper end of the operation incision was re-opened and an abscess in the liver was found, the contents of which were most offensive. A tube was put in and the wound was well packed with gauze. For two or three days the patient improved, then she gradually became worse and on Oct. 9th she died.

Post mortem the liver was found to be adherent to the upper part of the abdominal wound and to a small patch of the diaphragm. In the left lobe there was an abscess cavity and a small abscess as large as a Barcelona nut was found in the spleen. The wound in the stomach was quite healed and, indeed, was difficult to find. In the right lobe of the liver were two small dark patches at the site of the exploratory punctures. There was no peritonitis and all the other organs were healthy.

It seems difficult to account for the abscess as it does not

appear to have been part of a general pyæmic condition and the late onset, nine days after operation, and the absence of peritonitis do not point to any connexion with the ulcer. As the patient had never had any vomiting or hæmatemesis can it be possible that the fall from the bicycle was the cause of both lesions?

Wellingborough.

FEVER, FOLIACEOUS DESQUAMATION, MORBILLIFORM ERUPTION, AND ALBUMINURIA FROM COPAIBA.

BY J. C. MCWALTER, M.A. R.U.I., M.D. BRUX., D.P.H.

WHEN a patient presents himself with a copious rubelloid eruption, a temperature of 102° F., some congestion of the tonsils, and complains of being deadly sick, one naturally suspects scarlet fever. When, further, the patient is uncertain if he has ever had that disease, when he works in a large butter shop and lives in a lodging-house, and when his urine on being examined is found to contain albumin, the practitioner who decides that he is not dealing with a case of febris rubra undertakes a grave responsibility.

In the present instance, however, the whole phenomena were apparently due to the administration of copaiba in a case of acute gonorrhœa. The sufferer was a young man, aged 22 years, who had been taking 20 minim doses of copaiba whilst his affection was in the inflammatory stage. Although the rash which he exhibited was not unlike a copious copaiba eruption, the temperature of 102°, which had only abated to 101° by the next day after he had ceased to take the medicine and remained in bed, the general feeling of malaise, the throat conditions, and the fact that after three days a desquamation so considerable set in that foliaceous flakes of epithelium were shed off and regular casts of his fingers could be removed, led me to fear that I had been mistaken in attributing the eruption to the drug. This seemed to be the more likely as albumin was present in the urine in the earlier stage, though it quickly passed off. Finally, I sent the patient to the fever hospital but the staff concurred in the view that the symptoms were due to the copaiba and the patient got all right after four or five days though the desquamation continued somewhat longer. Evidently the disease plus the drug had produced a transient acute nephritis.

It is complacently laid down in text-books that when one has doubts whether a febrile eruption be scarlet fever it is safer to treat it as such. But the problem is nowadays not so simple. If a case is declared to be scarlet fever and a working man is sent to hospital and loses his situation he will have a legal remedy against the practitioner if there be any doubt as to the diagnosis. Should he work in a dairy or a butter shop the proprietors will have something to say if they are wrongly tainted with the suspicion of employing a scarlatinous servant; and, on the other hand, if the man really has an infectious disease in such a situation the danger is appalling.

Dublin.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

KING'S COLLEGE HOSPITAL.

A CASE OF PNEUMOTHORAX OCCURRING THREE DAYS AFTER INJURY TO THE CHEST.

(Under the care of Mr. F. F. BURGHARD.)

FOR the notes of the case we are indebted to Mr. Neville Hart, acting house surgeon.

A boy, aged six years, was admitted into King's College Hospital at 11.45 P.M. on August 31st, 1903 having been run over by a hansom cab with three people in it. The wheel, both from the marks on his coat and abrasions on his body, appeared to have passed from about one inch above the right iliac crest to the neighbourhood of the left axilla. His lungs previously to the accident were probably healthy. When seen some ten minutes after the accident he was severely collapsed; he was pale, with blue lips and cold extremities, his temperature being in the rectum 95·7° F. and his pulse 154, small, irregular, and unequal. He was not unconscious but was in a restless and excited condition. His respirations were 40 and accompanied by an expiratory "grunt." His abdomen was full and moved only very slightly on respiration; it was very hard and tense but not particularly tender. The note all over the abdomen was decidedly tympanitic, the liver dulness being normal with the exception of a somewhat square patch below the ribs which was absolutely dull. His flanks were resonant; his spleen was unpalpable and its dulness was normal. On examining the chest the left side was seen to be immobile and flattened and several ribs on that side were broken. The epiphysis of the right clavicle was separated. On palpation the heart's apex beat was found in its normal place and the crepitus of the broken ribs was very marked. The percussion note was normal all over the chest and the cardiac dulness was unaltered. On auscultation a loud rasping sound was heard all over the left base which was probably due to the friction of the lung against a broken rib. In addition to this a loud "thumping" sound was heard even several feet away. With the stethoscope it appeared to be best heard over the epigastrium. Excessive tenderness was present all over the left side and this made examination difficult. There was no sign or history of blood being brought up nor did vomiting ever occur. The patient was at once put to bed in a partially recumbent position with hot-water bottles to his extremities, but he was very restless and there was a tendency to cyanosis. Oxygen was frequently administered and brandy was given diluted with hot water. At 1.30 A.M. his pulse was weaker and fluttering and strychnine was given hypodermically. Soon after this reaction took place and reached its height at 4 A.M. The skin got warm, the face flushed, and the eyes brightened. His pulse rose to 184 and at 4 A.M. it was full and regular. His temperature rose steadily, being normal at 2 A.M., 100·2° at 3 A.M., and 100·8° at 4 A.M. His general condition was much improved but the dyspnœa was accentuated and he sat straight up; whenever there were signs of cyanosis oxygen was administered. He was still given brandy, though in small quantities and less frequently. He now passed 14 ounces of urine which was quite normal and contained no blood. His respirations reached 48 and increased in rate till 2 P.M. on the next day when they were at 64.

On Sept. 1st at 10 A.M. the dyspnœa was still extreme. The dulness below the liver already referred to was not now found. The signs in the chest were unaltered in front; the back was not examined owing to the patient's critical state. His general condition varied enormously from time to time and his pulse was frequently very weak and irregular. He was ordered spiritus ammoniæ aromaticus and digitalis in a mixture, the benefit of the latter being apparent in the early hours of the next morning when his condition became very critical. Warm brandy and water were administered frequently throughout the day and he had nutrient enemata twice. The child took his milk greedily and without vomiting. On Sept. 2nd at 10 A.M. he was better, though his eyes were sunken and his dyspnœa was marked, but rather less so than on the 1st. There were a few râles at the left apex and weak breath sounds were heard there; at the base the breath sounds if present were still quite obscured by the rasping sounds already described. At the back of the thorax the breath sounds of the left lung extended rather farther down and there was a patch of absolute dulness at the left base. The sounds all over the right lung were louder and somewhat harsher than normal. The administration of oxygen was discontinued and though the patient still took the spiritus ammoniæ aromaticus the brandy was omitted. On Sept. 3rd at 10 A.M. the temperature was 101°, the pulse was 192, and the respirations were 84. The child, who had been beginning to take a lethargic interest in things in general, was cyanosed and again in great distress; he was irritable and restless and on examination the condition of his chest was found to be very different. The left side though flat was not so flat as before and was absolutely immobile. The heart's apex beat was seen in the sixth intercostal space just beyond the right border of the sternum. Vocal fremitus had gone completely from the left side, except over a small area at the left apex. The percussion note was high-pitched all over the left side and in

parts almost dull, except at the apex which had its normal note. *Bruit d'airain* was not obtainable. No breath sounds could be heard over the left lung except at the apex and no vocal resonance could be made out. At 4 P.M., as the heart was still travelling to the right and its left margin was getting further and further from the sternum, it was decided to aspirate. This was done shortly after, the needle being inserted just below the angle of the left scapula, and ten ounces of blood were withdrawn, followed by a considerable quantity of "air." At first only two or three drops of blood were obtained through the large-sized needle, the remainder being very gradually removed with a Potain's aspirator. The heart returned very nearly to its normal place. At 7.30 P.M. the heart was found to be in its former position and the physical signs were as before aspirating with the exceptions that amphoric breathing was now heard in front and that the bell sound was obtained. The general condition, however, had wonderfully improved and was not at all critical. The pulse, temperature, and respiration came steadily down. His colour also improved and the expiratory "grunt" ceased. He again took an interest in his surroundings and that night, for the first time since admission, slept comfortably. On Sept. 4th the improvement was maintained. The left chest now moved slightly and the spaces of its lower part were seen to be sucked in with inspiration. The heart was in the same place. There was a loud flapping sound heard behind, its maximum intensity being at the level of the angle of the third left rib. The bowels were opened. On Sept. 5th the temperature touched normal and from this time onward the patient's condition steadily improved, his heart gradually returning to its normal position and the ordinary breath sounds reappearing from above downwards. He developed a slight cough on the 7th which soon passed off. On the 9th his condition was so good that an x-ray photograph of his chest was taken by Mr. Reid which showed that the ribs from the second to the seventh were fractured. A pneumothorax was sharply defined, extending from the sixth to the tenth rib, the lower lobe of the left lung being imperfectly seen collapsed near the spine. The upper lobe of the lung was apparently normal in appearance. The heart was pushed to the right side, the left border corresponding with the left side of the spinal column. A subsequent photograph taken eight days later showed that the left lower lobe had completely expanded and that the heart had resumed its normal situation. The patient was discharged on Sept. 28th.

Remarks by Mr. BURGHARD.—The case has many points of interest: (1) though the injury to the chest was great and several ribs were broken the injury to the lung was probably small since no blood was at any time brought up or passed by the bowel, whereas these signs are commonly seen after such an accident; (2) the occurrence of pneumothorax some days after the accident, possibly due to the friction of the broken end of the rib; (3) the rapid improvement after aspiration, the temperature coming steadily down; and (4) the loud flapping sound heard chiefly behind—this was considered to be due to the lung as it expanded hitting the parietes.

LONDON TEMPERANCE HOSPITAL.

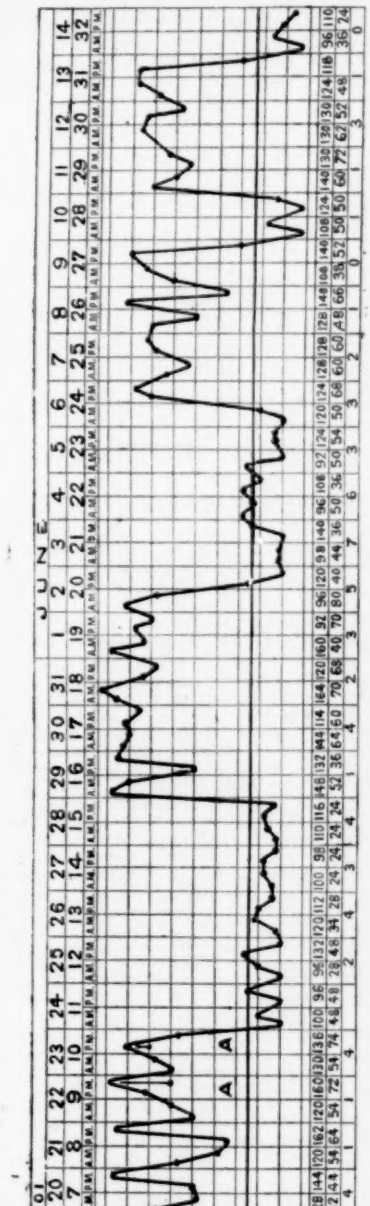
A CASE OF RECURRING BRONCHO-PNEUMONIA.

(Under the care of Dr. W. SOLTAU FENWICK.)

FOR the notes of the case we are indebted to Dr. Herbert Rhodes, senior resident medical officer.

The patient was a boy, aged two years, who was admitted into the London Temperance Hospital. The history showed that he had always been healthy, except for one attack of bronchitis, until May 13th, 1901, four days before admission, when he was sick, feverish, and short of breath. The breathing became easier during the next 12 hours but the child remained hot and restless. There was no family history of constitutional disease.

On admission the child was found to be well-nourished, the mucous membranes were pale, the face was flushed, the respiration was rapid, but there was not much cough. On examination of the chest no signs of disease were detected in the right lung. The left lung showed the usual evidence of pneumonic consolidation and pleurisy at the base of the upper lobe. The temperature fell to normal on the 24th and on the 26th signs of resolving pneumonia were found at the base of the upper lobe of the left lung. There was no general bronchitis. After a period of apyrexia lasting five



The vertical lines in these two columns indicate the reduction of temperature produced thereby.

days the temperature rose again on the 29th to 104·4° F. and there were now signs of consolidation at the apex of the right lung. On June 2nd the temperature again fell to normal and the signs of consolidation disappeared from the right apex, but on the fourth day—namely, on the 6th—the temperature again rose to nearly 104° and signs of pneumonia appeared at the apex of the left lung. Although the temperature fell on the 9th (the twenty-seventh day of the illness) for 24 hours, it rose again on the 11th and fell to normal finally on the 13th after a patch of dulness and bronchial breathing appeared at the left base. The child remained very anæmic and weakly for some time but made a perfectly satisfactory convalescence and was discharged cured on July 12th 1901.

The interest of this case lies in the apparent infection of new areas of lung tissue on three occasions, there being but a very short period of apyrexia between each recurrence. The treatment consisted chiefly in the exhibition of such expectorants and stimulants as ipecacuanha wine, ammonia, and musk. During part of the patient's sojourn in hospital he took two drop doses of guaiacol three times a day but this drug did not appear to have much influence on the course of the disease.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

A Contribution to the Pathology of the Thymus Gland.—Enlargement of the Prostate.—Unusual Tumour of the Skull.—Calcifying Chondro-sarcoma of the Breast.—An Unusual Form of Obstruction of the Colon.

A MEETING of this society was held on Dec. 1st, Mr. RICKMAN J. GODLEE, the President, being in the chair.

Mr. L. S. DUDGEON read a short abstract of some work which he had done in the Pathology of the Thymus Gland. He stated that his observations were based on an examination of 105 children of all ages. The thymus gland was also examined in a large number of adults, fœtuses, and various animals. He considered that the normal weight of the thymus in children was from seven to ten grammes. He collected 16 cases of "sudden death" and "children found dead." The average weight in these cases was 25 grammes. Thick yellow fluid was found in the interior of the gland in all large and enlarged gland and consisted almost entirely of lymphocytes and was not pus. It had nothing to do with congenital syphilis such as Dubois stated. In seven cases out of eight examined this fluid was found to be sterile. In one case the pneumococcus was found in pure culture and the fluid was found to be pathogenic to mice. All varieties of eosinophiles were the most characteristic cells in enlarged thymus glands. Hæmorrhages were found in the thymus in 95 per cent. of cases of deaths from bronchopneumonia or lobar pneumonia. 15 cases of marasmus were examined. The average weight of the gland was two grammes, and atrophy of the lymphoid corpuscles and replacement by endothelial cells and connective tissue were the commonest histological changes. Similar changes, however, were often found in cases of secondary atrophy.—Dr. H. MORLEY FLETCHER asked if the structure of Hassall's corpuscles varied as they occurred in the thymus of the fœtus, in the thymus from cases of marasmus, and in the thymus of the adult.—Dr C. R. BOX asked if there was any evidence to show that the marasmus occurring in children was due to the atrophy of the thymus. He also asked what was the cause of sudden death in these cases of enlarged thymus.—Dr. F. J. POYNTON said he did not think that the atrophy of the thymus was out of proportion to the general wasting in these cases of marasmus. He suggested that the fluid obtained from the gland should be centrifugalised and the clear fluid used for injection into animals in order to prove if it possessed any active substance.—Dr. J. H. THURSFIELD said that he had reported four cases of sudden death from enlarged thymus occurring in children. He did not think that asphyxia was the cause of death in these cases as the thymus, although large, was soft and pulpy and could hardly cause pressure on the trachea sufficient to cause death. The other view suggested was that death was due to some toxin produced by the thymus and circulating in the blood. He thought, however, that the cause of death was still uncertain.—Mr. W. G. SPENCER said that the swelling in the neck due to enlarged thymus was often easily felt and that the condition during life was very different from that found at post mortem examination. He stated that it had been shown by Wooldridge that the thymus gland possessed fibrinogen and the power of rapidly coagulating blood.—Mr. S. G. SHATTOCK said that he thought little reliance could be placed upon the staining reaction with van Gieson's stain, since the staining varied according to the manner in which it was used and the nature of the mixture.—Mr. DUDGEON, in reply, said that he thought the general marasmus and atrophy of the thymus went hand in hand. He did not believe that sudden death was due to coagulation of blood as he had never found thrombosis on post-mortem examination.

Mr. CUTHBERT S. WALLACE read an anatomical criticism of the procedure known as Total Prostatectomy. He first of all called attention to the following points in the structure of the normal prostate:—1. That there was no division into lobes. 2. That the circumferential portion of the gland was composed of fibro-muscular tissue and devoid of gland tissue. It was suggested that the term cortex, as proposed by Mr. Shattock, should be applied to this part of the organ. 3. That the part of the organ immediately in front of the urethra was also devoid of gland tissue and was the structure known as the anterior commissure. 4. That in a cross section at right angles to the axis of the urethra the fibro-muscular tissue was seen to radiate outwards and to join the circumferential portion of the organ. 5. That the gland tissue was most marked at the sides of, and behind, the urethra. 6. That outside the cortex lay the fibrous sheath derived from the recto-vesical fascia and in this was imbedded the venous plexus. This sheath was not a definite structure, such as the fascia lata of the leg, but consisted of a number of areolar planes in which fluid could extravasate. This structure would form the boundaries of the cavity left if the prostate was removed entirely. A specimen typical of the parts removed in the so called total prostatectomy was next shown. Special reference was made to the so called capsule seen on the surface of the tumour. A cross section showed a central glandular portion containing the urethra, the whole surrounded by an apparently fibrous capsule. Specimens of bladders with enlarged prostates removed after death were next considered. The first had been studied by means of cross sections at right angles to the axis of the urethra. The enlargement was seen to consist of a central glandular portion containing the urethra and a circumferential envelope. This was a dense laminated structure which admitted of cleavage in many planes. It contained gland tissue and was therefore derived from more than the outer non-glandular cortex. It was next shown that the central portion could be shelled out from the envelope and that the amount of envelope left on the central portion would depend on the depth to which the finger penetrated into the envelope. In the second specimen the front of the bladder and of the enlarged prostate had been removed by a coronal section. Adenomatous masses had been shelled out from both lateral parts of the organ. A median ridge representing the posterior wall of the urethra was left behind; the lateral walls of the canal had come away on the surfaces of the adenomata. The wall of the bilocular cavity thus left was a very definite structure and was found capable of further division, which division resulted in the removal of a bilocular envelope. After removal of the envelope there was still left behind a very definite wall bounding an unilocular cavity. This wall was shown to contain gland tissue and must have therefore been derived from the glandular part of the organ. Outside this wall lay the prostatic plexus of veins. If the two adenomatous masses were replaced in their envelope it was seen that the mass resembled the parts removed in the so-called total prostatectomy. The formation of the adenomata and of their envelope was then traced and it was shown how the growth of the adenomata stretched the prostatic tissue over themselves and forced the fibres to take up a circumferential direction and to form the definite envelope seen in the previous post-mortem specimens. The size of the organ had no definite relation to the progress of the adenomatous change. One specimen removed during life and weighing 150 grammes was identical in appearance with another also removed from a living patient which weighed only 20 grammes. The type of enlargement depended on the point at which the adenomata developed. If they grew in the lateral lobes then two adenomata might

be removed either singly or encompassed by an envelope. If the growth increased at the same rate throughout the glandular area of the organ then the parts removed would consist of an adenomatous mass practically surrounding the urethra. The so-called median lobe was always continuous with one or both of the lateral lobes. It was then pointed out that the glandular masses surrounded by the innermost part of the envelope enucleated from the parts removed after death corresponded accurately to those removed by the so-called operation of total prostatectomy in the living subject. It must be concluded, therefore, that the parts left behind in these two procedures corresponded. Now in the case of the parts removed after death after an enucleation such as had been described there was left behind a definite envelope. This envelope had been shown to contain gland tissue and therefore to represent more than the non-glandular cortex. External to this envelope the prostatic venous plexus had been shown to lie. It therefore followed that after the so-called total extirpation of the prostate an envelope formed of expanded prostatic tissue was doubtless left behind and bounded the cavity formed by the removal of the tumour. From the facts detailed above the following conclusions were drawn: (1) that the usual form of prostatic enlargement was an adenomatous one; (2) that the adenomatous masses might surround the urethra or form masses in the lateral lobes; (3) that the parts removed might consist of adenomata from the lateral lobes or of an adenomatous mass surrounding the urethra; (4) that there was always left behind a definite laminated envelope containing gland matter; (5) that the amount of envelope left on the surface of the tumour depended on the point at which the enucleating finger entered the envelope; (6) that the recto-vesical fascia was not opened and therefore the prostatic plexus veins were not injured; and (7) that though it was possible to remove small adenomata from the central part of the lateral mass of the prostate without extensively injuring the urethra, yet this canal was removed *in toto* when the adenomatous growth surrounded the urethra and the lateral walls were removed on the adenomata when these were of any size. It was suggested that the name "surgical capsule" should be applied to this envelope formed by the expansion of the adenomata; it was a pathological product and represented more than the cortex. To its presence was due the small amount of hæmorrhage and the absence of urinary extravasation. The enucleating finger never passed outside the limits of the prostate; it could not therefore enter the recto-vesical fascia or tear the prostatic venous plexus.—Mr. G. H. MAKINS said that these observations showed that the recto-vesical fascia was not opened up in the operation known as total prostatectomy and hence the danger of extravasation of urine into the tissue and the danger of hæmorrhage were avoided.—Mr. E. M. CORNER said that if the bed from which the prostate had been enucleated was examined by the finger it was found to have an even surface and quite different from the loose tissue of the recto-vesical fascia, and this accounted for the rarity of extravasation of urine and of hæmorrhage after removal of the prostate.—Mr. SHATTOCK said that the specimen showed that the entire prostate was not removed but there was always left behind a layer of glandular and fibrous tissue.

Dr. H. A. LEDIARD read an account of a case of Thyroid Malignancy. The specimens shown were from a woman, aged 42 years, who was treated in the Cumberland Infirmary during March, 1903. A goitre had existed for years and was succeeded by a growth in the frontal region of 12 months' visible appearance. The removal of the secondary tumour was imperative and the frontal bone was found to be penetrated by a growth resembling goitrous tissue. The size of the perforation was over two inches in diameter. The brain was not involved. The thyroid gland was cirrhotic and showed fibrous and calcareous changes together with an adenoma of small size growing actively, the tubules of which were invading the thyroid tissue. The secondary growth in the skull showed spaces filled with colloid material similar to ordinary goitre. This metastasis was associated with goitres of long standing and the cranial bones were selected by preference. Three similar cases were recorded in the Transactions. The paper was illustrated by micro-photographs, slides, and lantern views. Dr Lediard claimed to have traced the secondary growth in the skull to the adenoma growing in an old goitre and suggested that thyroid malignancy, hitherto obscure, was now satisfactorily explained.

Mr. C. A. MORTON showed a Calcifying Chondro-Sarcoma of the Breast removed from a woman, aged 64 years, which was very hard and heavy. It was round with a diameter of one and three quarter inches, harder than scirrhus but not glistening, and contained many areas of calcification. Secondary growths of the same nature appeared in the gluteal region 15 months later. Microscopical sections showed a mixture of sarcoma cells and cartilage. In some areas the cartilage had a hyaline matrix, but in others large numbers of cells like cartilage cells were crowded together without any matrix. Tumours of the breast containing cartilage were in the great majority of cases sarcoma. Four other cases of the kind were recorded in the Transactions of the society.

Mr. MORTON also showed an Unusual Form of Obstruction of the Colon. A portion of the transverse colon six inches in length formed the obstruction. The wall was very greatly hypertrophied and the mucous membrane was thickened, honeycombed, and extensively separated from the muscle coat beneath, but not as a slough. This very extensive separation of the mucous membrane without necrosis was the most striking feature of the specimen. It seemed likely that the honeycombed appearance was due to old ulceration. The almost detached mucous membrane formed a sort of network within the bowel composed of fine spiral rods, the whole mass resembling somewhat a collection of fine white worms. Symptoms of chronic obstruction had been present for a long time and a history of syphilis suggested that as the possible origin of the ulceration.

CLINICAL SOCIETY OF LONDON.

Chronic Intussusception treated by Intestinal Resection.—Cases of Lymphocythæmia.—Post-operative Hernia treated by the Introduction of Silver-wire Filigree.

A MEETING of this society was held on Nov. 27th, Dr. FREDERICK TAYLOR, the President, being in the chair.

Mr. F. C. WALLIS gave an account of a case of Chronic Intussusception treated by Intestinal Resection (illustrated by the epidiascope) which is published in full at p. 1559 of our present issue.—Mr. A. E. J. BARKER remarked that it was not uncommon for the lower part of the bowel into which intussusception had taken place to slough. It should always be very carefully examined at the time of operation. He preferred simple suture to the use of Murphy's button in such cases.—Mr. W. BRUCE CLARKE remarked on the importance of cutting through absolutely healthy bowel. He concurred with the previous speaker in preferring end-to-end suture rather than Murphy's button.—Mr. WALLIS replied.

The PRESIDENT read a paper on two cases of Lymphocythæmia (Lymphatic Leukæmia). The first case was that of a boy, aged ten years, who first complained of pains in the legs, thirst, and yawning. Six weeks later he was found to have enlargement of the left parotid gland, dulness over the upper part of the sternum, a deep-seated tumour in the left flank, but no obvious enlargement of the lymphatic glands. Two weeks later he was admitted into Guy's Hospital with enlargement of both parotid and submaxillary glands, of the liver, and of the left kidney. A blood count showed 15,000 leucocytes per cubic millimetre, of which 45 per cent. were small lymphocytes. A few days later the parotid swellings had increased and some lymphatic glands close by had enlarged, but there was no general increase in the size of the cervical glands or of those in the axillæ or groins. Each lacrymal gland was felt as a hard mass between the orbital ridge and the eyeball. The leucocytes increased to 50,000, and a differential blood count gave small lymphocytes 94, large lymphocytes 3, polymorphonuclears 2·5, and eosinophile 0·5 per cent. Hæmorrhages from the mucous membranes appeared and he died a month after admission. The post mortem examination showed enlargement of the above-mentioned glands, also of the thymus, spleen, and kidneys. Microscopically the enlarged organs were densely packed with lymphocytes. The second case was that of a girl, aged 14 years, who was seen on Jan. 14th. Six weeks previously she had had pains in the limbs with malaise. The mammæ had been noticed to be enlarging. Her eyes became prominent and two days after the feet swelled. She was pale, dyspnœic, and had œdema of the eyelids. The salivary glands were enlarged; the mammæ were enlarged, hard, and nodulated. The liver reached one inch below the umbilicus. The edge of the spleen could just be felt. The lymphatic glands in the axillæ and groins

were not specially enlarged. A blood film showed an extraordinary excess of leucocytes, of which 95·8 were small lymphocytes. She died on Feb. 21st, after the onset of ascites, epistaxis, and uterine hæmorrhage. The rapid course of both these cases and the enlargement of the mammæ and the thymus were unusual features. The relatively small size of the lymphatic glands suggested that these organs were not primarily at fault.—Dr. H. BATTY SHAW asked what was the condition of the marrow in these cases. The enormous enlargement of the kidney must be regarded as accidental, like the red deposits which might occur subcutaneously and in various other positions. Some believed that such deposits were produced by the changes in the marrow but others regarded the change in the lymphatic glands as the originating factor of the disease, those in the marrow being secondary. The fœtor of the gums was not an invariable feature.—Dr. F. PARKES WEBER suggested that the bone marrow was in all probability the chief source of the disease. In every case in which the marrow had been examined it was found to be changed. Cases had been recorded in which the bone marrow was the only leucocyte-forming organ at fault, the lymphatic glands being healthy. Lymphocytes should, in his view, be regarded as an undifferentiated or fœtal variety of myelocytes.—Dr. A. G. PHEAR remarked on the small size of the lymphocytes in these cases. He believed that the large and small lymphocytes had a separate origin. The bone marrow could not be regarded as a source of the large lymphocytes.

Mr. LAWRIE H. MCGAVIN narrated a case of Post-Operative Hernia of the Abdominal Wall treated by the Introduction of a prepared Silver Wire Filigree. The patient, a woman, aged 47 years, had undergone an operation 15 years previously for the removal of a uterine fibroid and had developed a ventral hernia at the site of the old operation of such dimensions that the chances of obtaining a permanent cure by the usual surgical procedure were of the slightest. At the time of operation (on Oct. 1st, 1903) it was clear that so much tissue would have to be sacrificed that great difficulty would be experienced in closing the abdomen. A silver wire filigree was therefore made after the method suggested and practised by Willard Bartlett, measuring five inches by two and a half inches, and this was inserted between the muscles and the peritoneum, the former being approximated by the introduction of a special form of removable deep suture. The skin incision was then closed by interrupted silkworm gut sutures and a firm abdominal binder was applied. Both superficial and deep sutures were removed by the tenth day and the patient left the hospital at the end of three weeks. Since the operation she had been well and comfortable in every respect and was performing her ordinary duties without the use of an abdominal support of any sort. The site of operation was sound, a firm and somewhat depressed area marking the position of the filigree. The whole of the symptoms previously complained of by the patient—viz., griping pain, nausea, frequency of micturition, and constipation—had entirely disappeared.—Mr. BRUCE CLARKE inquired as to the exact method of fixing the wire filigree.—Mr. BARKER remarked that the interlacing of sutures at the time of the operation took longer but in his belief gave very good, if not better, results. Such cases wanted following up for several years.—Mr. MCGAVIN replied and described the method of making and fixing the filigree or lattice-work of wire.

OPHTHALMOLOGICAL SOCIETY.

Indirect Gunshot Injury of the Eye: Microscopical Examination.—An Easy Operation for Ectropion.—Average Visual Acuteness.—The Judgment of the Size of Distant Objects.—Exhibition of Cases and Specimens.

AN ordinary meeting of this society was held on Nov. 19th, Mr. JOHN TWEEDY, the President, being in the chair.

Mr. E. NETTLESHIP read a paper on a case of Indirect Gunshot Injury of the Eye with Microscopical Examination. The patient was a youth, aged 19 years, who in July, 1897, held a pistol to each temple and fired. He was taken to the hospital bleeding from a wound in the right temple. The skin was singed and the bullet wound passed through the orbit into the ethmoid. In the left temple was a bullet wound into which a probe could be passed two or three inches. There was perception of light in the right eye but not in the left. Nine days later the right fundus showed hæmorrhages in various parts of the fundus. In the left no details were visible. 29 days later the right disc was very pale and there were several ruptures of the choroid. The left was not so well seen. 31 days after the accident he was examined with the x rays, this being in their very early days. It was thought that two bullets were seen in the skull but this was found afterwards to be an error. On the thirty-sixth day after the injury convulsions developed and the patient died comatose. Post-mortem examination showed that there was no bullet in the skull. There was meningitis of the base and vertex. Only the pistol fired on the left side took effect, the right having probably had a blank charge in it. The back part of the eyes were removed for examination and Mr. Nettleship gave a lantern demonstration and showed photographs of the condition found on microscopical examination. The point of interest was that although the bullet had caused so much injury to the choroid yet this was only indirect as it had not passed near enough to the eye to touch it and there was no rupture or perforating injury of the sclerotic.—The PRESIDENT mentioned a somewhat similar case that had come under his own observation.

Dr. A. FREELAND FERGUS described an easy Operation for Ectropion which he had found very useful for ectropion following certain cases of blepharitis. He considered that the usual methods with caustics were unsatisfactory. The operation he described consisted of dissecting the conjunctiva well away from the underlying tissue and removing the hypertrophied tissue thoroughly; on this latter point depended the success of the operation. He considered that Snellen's sutures produced but little effect if they were kept aseptic.

Dr. FERGUS also read a paper on Average Visual Acuteness. He seriously called in question whether the $\frac{1}{2}$ of Snellen's types was the average vision of the majority of people. He thought that the average was nothing like so high if patients were taken without the correction of their refractive error, and that for medico-legal questions the average without correction should be taken. He requested that a committee should be formed to investigate this. It might at the same time investigate the question of colour vision, as he considered that colour blindness was not in any way dangerous to navigators or seamen if their light sense were normal.—Mr. C. DEVEREUX MARSHALL said that he was surprised that colour blindness should be considered of so little importance to those engaged in navigation, and if there were any who doubted the extreme inadvisability of allowing colour blind men to take responsible positions on board ship a committee should certainly be formed to settle the matter.—The PRESIDENT said that although he quite agreed as to the importance of the light sense being perfect, yet he by no means thought that colour blind people should be allowed to take charge of ships.—Mr. H. SECKER WALKER and Mr. W. G. ROLL discussed the operation, and Dr. FERGUS, in reply, said that he considered colour blindness of no disadvantage to seamen, for if their light sense was perfect they would never confuse the side lights. He thought it entailed much hardship on men who were perhaps refused the extra master certificate for colour blindness when they may have served many years at sea without any accident having occurred in consequence of their defect.

Mr. N. BISHOP HARMAN, in a paper on the Judgment of the Size of Distant Objects, referred to a note in the *British Medical Journal* of Sept. 12th, 1903, wherein a writer drew attention to an experiment in which, by an illusion, the experimenter was led to believe objects seen were smaller and more distant than they were known to be; this had been attributed to the influence of accommodation. Mr. Harman pointed out that these facts were true and well known. He showed by several simple experiments with prisms and stereoscopic views that objects could be made to appear either small or large at will and that this illusion was due to the state of balance of the extra-ocular muscles. The unconscious cerebration led the observer to suppose that objects of a given size appeared, when seen under unnatural conditions of convergence, smaller and more distant, but that when seen under unnatural divergence they seemed larger and nearer than they were known to be. Mr. Harman showed that in the progression of the vertebrates increase of visual acuity was coincident with the moving of the eyes from a primitive lateral position in the head to a forward position in which the visual axes could approximate a normal parallelism; the change was

complete in man and with him special perception was probably most perfect. Coincident with these changes was a specialisation of the superior oblique muscle. Mr. Harman pointed out that in the plaice almost the whole of this slow progression had been anticipated at a bound. This fish elected to live a life resting on one side and it appeared to depend above all other fish on the acuity of its eyes, both of which were turned upwards on the exposed uppermost side and were, he thought, capable of some degree of parallelism of visual axes. In this fish he had found the same special features of the superior oblique muscles which characterised the higher vertebrates; they were not found in any other than flat-fish and not even in the embryo forms of these. He believed that the steady progression of the vertebrates towards binocular vision indicated the pre-eminent importance of extra-ocular muscle balance in the factors which went to form their judgment of size and space.

The following cases and card specimens were shown:—

Mr. ROLL: A case presenting a raised area of Choroidal Degeneration.

Mr. R. W. DOYNE: (1) A case of ill-developed Cornea; and (2) Sclerosis of the Retinal Arteries.

Mr. G. H. POOLEY: Thrombosis of a Retinal Vein (?).

Mr. E. E. HENDERSON: Sections showing Subconjunctival Dislocation of the Lens.

Mr. W. H. H. JESSOP: A case of Sarcoma of the Limbus.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Election of Officers.—Treasurer's Report.

AT the annual general meeting, held on Nov. 23rd at St. Mary's Hospital, Mr. C. B. LOCKWOOD, President, in the chair, the following officers were elected for the ensuing year:—President: Dr. J. Symington. Vice-Presidents: Dr. A. Thomson, Dr. A. M. Paterson, and Dr. J. Yule Mackay. Treasurer: Mr. F. G. Parsons. Secretaries: Dr. Peter Thompson (England), Dr. R. J. A. Berry (Scotland), and Dr. R. A. Stoney (Ireland). Council: Dr. C. Addison, Dr. A. Birmingham, Dr. T. H. Bryce, Dr. D. J. Cunningham, Dr. A. F. Dixon, Dr. E. Fawcett, Dr. R. J. Gladstone, Dr. T. Wardrop Griffith, Professor G. B. Howes, Dr. A. Keith, Mr. C. B. Lockwood, Dr. A. Macalister, Dr. J. Musgrove, Dr. C. J. Patten, Mr. W. G. Ridewood, Professor A. Robinson, Mr. G. D. Thane, Mr. H. J. Waring, Dr. B. C. A. Windle, and Dr. A. H. Young.

Dr. A. KEITH (in the absence of Professor G. B. Howes) presented the treasurer's report for the year. The accounts showed a balance of £55 14*s.* 2*d.*, which, in view of the increased expenditure in illustrations and printing for the society's Proceedings during the last session, must be considered as very satisfactory.—The PRESIDENT, in moving the adoption of the report, referred to the long years of service which Professor Howes had devoted to the society as its treasurer and he proposed "that the best thanks of the society be accorded to Professor G. B. Howes for the long and valued services which he has rendered in the capacity of honorary treasurer."—This was carried unanimously.

The following gentlemen were then elected members of the society:—Dr. Waterson, Mr. W. Thorburn, Mr. F. H. Westmacott, Dr. C. W. S. Saberton, Dr. W. Harris, Mr. H. S. Clogg, Dr. E. J. Evatt, and Mr. Scott.

The following papers were afterwards brought before the meeting:—

Mr. PARSONS: (1) On the Nature of Certain Epiphyses; (2) On the Fascial Expansions of the Gracilis and Semitendinosus.

Dr. W. KIDD: Notes on the Eyebrows of Man.

Dr. KEITH: A note on the Nature and Functional Meaning of the Ileo-cæcal Valve.

Dr. W. HARRIS: The True Form of the Brachial Plexus.

Dr. J. CAMERON (communicated by Dr. Peter Thompson): On the Presence and Significance of the Superior Commissure throughout the Vertebrate Series.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held at Sheffield on Nov. 20th, Dr. J. E. Gemmell, the President, being in the chair.—Dr. T. B. Grimsdale read notes of a case of Sloughing Submucous Fibroid of the Uterus projecting through the Cervix treated by abdominal hysterectomy. The specimen was also shown.—The President, Dr. W. Walter, Dr. D. Lloyd Roberts, and Dr. E. C. Croft discussed the case.—Dr. R. Favell read notes of a case in which a vesicular mole was passed the day after admission to hospital by a married woman, aged 21 years, in her third pregnancy. Two small purplish growths of the size of raspberries were excised from the anterior vaginal wall. Exploration of the uterus showed that the mole was of the destructive variety. The patient made a good recovery. He also read notes of a case of Submucous Fibroid removed from a married woman, aged 33 years, who had no children and who suffered from a watery discharge and menorrhagia.—The President and Dr. Lloyd Roberts suggested that the second case seemed to be a favourable one for performing "Cæsarean section" of the fibroid, the latter holding that this was perfectly justifiable in a woman in the child-bearing age, but in a woman of 50 years it did not appear necessary.—Dr. Walter said that when it was possible he always removed fibroids by enucleation or by a sort of Cæsarean section. Although his experience in nearly every case was that the uterus was so bruised by this that it became a question whether it was worth while preserving, yet the operation should always be begun with the hope of saving it.—The President read notes of a case of Complete Occlusion of the Os Uteri Externum at Full Term. The patient was a primipara who had been 12 hours in labour. There had been some hæmorrhage which proceeded from a vaginal laceration on the left side; there was no trace of an os but a cystic swelling bulged into the roof of the vagina and in this the fœtal head was felt. The patient was admitted into the Lying in Hospital in a collapsed condition. On examination a white spot of the size of a pin's head was found on the left of the swelling and a crucial incision was made through it. The child was delivered with forceps, incision of the perineum being necessary. Subsequently the temperature rose and local examination proving negative, anti-streptococcic serum was given. After slow convalescence the patient left the hospital. It was pointed out that such an occlusion was not always the trivial matter which it was generally regarded as being. Mattei, in a collection of cases, showed 36 operations out of 42 cases, with three maternal deaths.—Dr. Lloyd Roberts mentioned two cases which had occurred in his experience.—Dr. Croft read a paper on three cases of Urinary Calculus in the Female. In the first case a stone weighing five grains was passed spontaneously per urethram. The second calculus weighed 232 grains and was removed by vaginal cystotomy from a woman, aged 62 years. The same treatment resulted in the third case in the removal of a stone 510 grains in weight from a woman, aged 20 years. Dr. Croft thought that in all three cases the calculi had their origin in the kidney and he emphasised the necessity for removing stones of such size by a vaginal incision in preference to dragging them through the urethra or performing a tedious lithotrity.—Dr. Grimsdale said that he thought it was better not to suture the vaginal incision; he preferred to place a tube in it and to drain for a week before allowing spontaneous closure to take place. In a small vagina this saved trouble.—Dr. Walter said that he agreed with Dr. Croft's remarks as to the route adopted and considered that even exploration of the bladder per urethram by means of the finger was unsafe.—Various pathological specimens were shown by Dr. John W. Martin and Dr. Walter.

ABERDEEN UNIVERSITY MEDICAL SOCIETY.—A meeting of this society was held on Nov. 27th, Professor J. T. Cash being in the chair.—Dr. D. Lawson of the Sanatorium, Banchory, delivered an address on the Sanatorium Treatment of Pulmonary Tuberculosis, commencing his remarks with a reference to the historical side of the subject. He said that in 1840 Mr. George Bodington of Sutton Coldfield published an essay on the Cure of Pulmonary Consumption on Principles Rational and Successful and established a sanatorium which was eventually converted into an asylum for the insane. In 1855 Dr. Henry MacCormac of Belfast published his work and was afterwards censured for wasting the time of his colleagues. Hermann Brehmer in 1856 wrote a thesis entitled "Tuberculosis is in its First Stage is always Curable" and in 1859 he opened the Goerbersdorf Sanatorium. Among those who were authorities on the subject of present-day sanatoriums there were three clearly defined schools—the Falkenstein, the Nordrach, and the British school. At the Falkenstein Sanatorium there was one central building with wings forming an

obtuse angle with it and a prominent feature of the treatment was the rest in the open air which was enforced amongst the patients. With regard to food patients were allowed considerable liberty and, generally speaking, ease, comfort, and luxury prevailed. The Nordrach Sanatorium consisted of a colony of detached buildings. Regulated exercise was largely employed in the treatment of patients and forced feeding to a certain extent formed part of the system. The *régime* was of the Spartan kind and in contrast with the one at Falkenstein Sanatorium; there were no billiard or smoking rooms in connexion with the Nordrach establishment. Both Falkenstein and Nordrach sanatoriums were defective in regard to the scientific side of the treatment and neither of them was provided with a sufficient nursing staff according to the ideas which prevailed in this country. The British school aimed at combining the recognised good points of both these establishments and at providing a fully qualified nursing staff, first-class equipment upon the scientific side, a relatively large medical staff, and individual treatment. The Banchory Sanatorium followed the precedent of Falkenstein to the extent that it was one central building and that it provided facilities for the patients lying out in the open air. Although there were some differences of opinion in the British school with regard to architectural arrangements, practically all were at one in dispensing with billiard rooms, smoking rooms, and conversation rooms, and in this respect they resembled Nordrach. At the Banchory Sanatorium considerable attention was given to the scientific side of the question and there were research laboratories and various kinds of scientific appliances, including x-ray apparatus. Dr. Lawson then described the system of treatment which was followed. With regard to walking exercise he said that at first the distance was probably not more than 100 or 200 yards, but it was gradually increased until by the time the patient was discharged he might be walking about 30 miles a day. There were no set rules as to exercise; that had to be regulated by various things such as the temperature of the patient. The advantages of hill-climbing in connexion with the treatment were very great owing to the tendency to deep breathing which was promoted.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 19th, Mr G. H. West Jones, the President, being in the chair.—Dr. A. J. Hall showed four cases, one of which was an example of Thrombosis of the Portal Vein in a man, aged 48 years.—Dr. W. T. Cocking showed a man, aged 36 years, the subject of Progressive Myositis Ossificans. The disease, which was very advanced, commenced at the age of eight years and during the last few years the patient had been an inmate of many London and provincial hospitals. The case is reported by Dr. H. D. Rolleston in the Transactions of the Clinical Society, vol. xxxiv., and in THE LANCET of Sept. 28th, 1901, p. 849, by Mr. A. Ll. Vaughan.—Mr. G. Wilkinson showed a man, aged 37 years, from whom he had removed a retroperitoneal lipoma weighing 13 pounds 12 ounces six weeks previously. The growth had to be separated from the bladder and the right ureter was found running through the mass and was dissected out for about eight inches of its course. The patient suffered from shock for 24 hours after which he made a speedy and uneventful recovery. The tumour measured 19 inches in length by 12 inches in breadth and about six inches in thickness.—Other cases were shown by Mr. Edward Skinner, Dr. F. H. Waddy, and Dr. A. Cuff.—Dr. A. Lewis Hu-band read a paper on Agoraphobia and some allied conditions. After defining the three conditions known as agoraphobia, claustrophobia, and acrophobia, he related cases which he had met with during a period of seven years. In all some 40 cases had been collected. After discussing the probable etiology of the conditions from the optical, physiological, anatomical, and psychical standpoints he drew the following conclusions. 1. Agoraphobia, claustrophobia, and acrophobia are more or less allied conditions attributable to analogous causes. 2. Agoraphobia and claustrophobia are directly determined by errors in the visual apparatus, chiefly refractive. The former is usually associated with myopia and the latter with hypermetropia. Astigmatism and asthenopia may be associated with either. 3. Acrophobia is generally due either to lack of training and experience in the visual measurement of distance in the downward direction or to loss of acquired power sequential to some condition of lowered vitality, such as anæmia, neurasthenia, or senility. 4. Agoraphobia and claustrophobia, but not acrophobia, are most common in persons of neurotic temperament and tendencies. 5. Neurasthenia and similar affections do not necessarily cause any of these conditions, nor are the latter always characteristic of neurasthenia, but neurasthenia plus refractive errors usually causes either agoraphobia or claustrophobia. 6. All the conditions become much exaggerated under any low state of health.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—A clinical meeting of this society was held at the Guildhall, Windsor, on Nov. 25th, the President, Mr. W. B. Holderness, being in the chair. Various microscopical specimens were exhibited, and through the kindness of Dr. Butcher Mr. J. Startin was enabled to show to the members a specimen of Radium and mentioned its good effects in the treatment of rodent ulcer.—The President showed a case of extensive Lupus of the Face and Upper Extremities in places simulating psoriasis. The patient had undergone treatment in London by the Finsen light and had derived considerable benefit but was now unable to continue the sittings.—Mr. Startin exhibited a patient who had been under the care of Mr. A. C. Wigmore and himself. The patient, a young man, presented some scarring of the cheeks, where an extensive patch of lupus had been cured by the persistent application of the Roentgen rays.—Mr. J. H. Tomlinson showed a man, aged 45 years, the subject of Facial Paralysis and Choroiditis. He suffered from subjective visual sensations of an unusual nature.—Dr. G. E. Hale showed a case of a Pulsating Expansile Tumour in an elderly woman. It was thought to be an aneurysm of the abdominal aorta or of the cœliac axis.—Dr. W. F. Lloyd showed (1) a case of Lupus of the Upper Lip in a young woman (treatment by the application of the x rays had been tried and so far there had been little result); and (2) a case of Leucoplakia of the Tongue in a woman aged 55 years.—Dr. F. E. Wood showed (1) a woman, aged 56 years suffering from Dilatation of the Capillary Vessels over the Chest, Abdomen, and Arms (there was hypertrophy of the heart, arterial fibrosis, and albuminuria); and (2) a boy, aged 12 years, with Two Systolic Murmurs, one of which was thought to be congenital.—Dr. C. R. Elgood showed (1) a woman, aged 50 years, the subject of Raynaud's Disease; and (2) a child with Unequal Pupils, the larger being insensible to light and to accommodation.—The cases were subsequently discussed *seriatim*.

PLAISTOW AND CANNING TOWN MEDICAL SOCIETY.—A meeting of this society was held on Nov. 26th, Mr. Percy Rose being in the chair.—Dr. P. Horrocks, who was present by special invitation, read a paper on Puerperal Sepsis. He discussed the subject from the standpoints of causation, prevention, and treatment. Among the sources of infection he was of opinion that streptococcal contagion from other cases of septicæmia, from cases of erysipelas, and from decomposing animal matter such as was found in post-mortem rooms and butchers' shops, played the most important part. As regards prevention he laid special stress on the careful sterilisation of the accoucheur's hands, the avoidance of frequent vaginal examinations, and the abstention from intra-uterine and vaginal douching except in cases already infected. In the treatment of puerperal sepsis intra uterine douching was certainly of value, particularly in cases of sapræmia. A more thorough method was curetting the whole of the uterus. He did not approve of hysterectomy in such cases. Antistreptococcic serum was sometimes of value but it frequently failed.—An interesting discussion followed the reading of the paper.

ÆSCULAPIAN SOCIETY OF LONDON.—A meeting of this society was held on Nov. 27th, Dr. Leslie Durno, the President, being in the chair.—Dr. David Ross read a paper on Visceroptosis based on a case of dropped liver in a multipara, aged 37 years. She had for six months severe paroxysmal pain at the region of the liver that sometimes commenced in her sleep, lasted one or two hours, and then passed off. She was so fat that though the lump below the right ribs could be felt a diagnosis was uncertain. But as she became thinner the liver could be taken between the two hands above and below and a diagnosis made. A belt was worn which completely prevented symptoms. 40 ounces of urine were passed per diem; it had a specific gravity of 1012, no albumin was present, and it contained 0·4 per cent. of

glucose.—Mr. F. Hewitt Oliver reported a case of Fatal Carbolic Acid Absorption by a baby who was circumcised, the wound being dressed with 1 in 40 of carbolic acid for four days; in that time 15 ounces of a 2·5 per cent. solution were used. Then the child became collapsed and died shortly afterwards. Acute nephritis was found by a microscopic examination of a kidney.

CHELSEA CLINICAL SOCIETY.—At a meeting of this society, held on Nov. 17th, Dr. T. Vincent Dickinson, the President, being in the chair, Dr. C. C. Gibbes showed a series of cases illustrating the Effect of Overstrain on the Orifices and Walls of the Heart and Aorta.—Dr. Vinrace exhibited a Dermoid Cyst, consisting of sebaceous matter and hair, which was found unexpectedly during a post-mortem examination on a woman, aged 29 years.—Dr T. B. Hyslop read a paper entitled "The Examination of a Person Alleged to be Insane."—Dr. Eric Pritchard read a paper on the Inheritance of Acquired Characteristics. He contended that certain acquired characteristics must be inherited. The inheritable characteristics were those which were due to general changes of metabolism in the parent, such as immunity and susceptibility to disease. Inasmuch as the germ plasma is living it must have a metabolism and this can be altered by the factors in the environment. If habits of metabolism can be inherited, since structure is one of the expressions of metabolism, it is at least theoretically possible that acquired morphological structures may in certain cases also be inheritable.

NEWPORT MEDICAL SOCIETY.—A meeting of this society was held on Nov. 25th, Dr. J. Howard Jones, the President, being in the chair. The following clinical cases and specimens were exhibited. Patients with Locomotor Ataxy, Tertiary Syphilitic Ulceration of the Nose and Lupus under Treatment by Roentgen Rays (four cases), and sections of Melanotic Carcinoma and of Adenoma.—The President delivered an address on Hygiene Ancient and Modern, in which he described the hygienic measures prescribed for the Jews in the Mosaic laws and the Talmud and compared them with our modern public health regulations.

Reviews and Notices of Books.

An Atlas of Human Anatomy for Students and Physicians. By CARL TOLDT, M.D., Professor of Anatomy in the University of Vienna; assisted by ALOIS DALLA ROSA, M.D. Translated from the third German edition and adapted to English and American and international terminology by M. EDEN PAUL, M.D. Brux., M.R.C.S. Eng., L.R.C.P. Lond. First Section: A. The Regions of the Human Body; B. Osteology. Figs. 1 to 377, and Index. London: Rebman, Limited. 1903. Pp. 160. Price 9*s.* net.

ENGLISH-speaking students of anatomy will not fail to appreciate the excellent translation of the first section of Toldt's Anatomy which has been prepared by Dr. Eden Paul. This atlas has advowedly been selected on account of its claims to be an accurate pictorial representation of all the data of human descriptive anatomy carefully drawn to scale from actual specimens. As the translator observes, it forms a definite and systematic application of the visual, or rather graphic, method to anatomical study. This claim is good and sound and the volume before us fully bears out all that is claimed for it.

It is, perhaps, hardly fair to call the work a mere translation; thanks to the care and industry of the translator it is more than this. It really affords a direct tabular comparison of the English and continental terminology. The translator very justly deplores the absence of a universal anatomical nomenclature which should be equally intelligible to students of all nationalities. Difficulties and defects in nomenclature have evidently formed the chief obstacle in translation and appear to have been admirably surmounted. The continental and English names are in all cases printed side by side on the illustrations in distinctive types. In selecting the appropriate English equivalent much discrimination has been exercised and Quain's and Macalister's works have been mainly adopted as standards. The translator points out that in some places the author's nomenclature actually conflicts with that in use in England as, for instance, in the case of the pterygo palatine canal, a term which is applied to what we know as the posterior palatine canal, whilst our pterygo-palatine canal becomes pharyngeal in his nomenclature.

The first section of the atlas is devoted to the names of regions of the body and to osteology. The former is naturally brief and calls for no detailed notice. The osteological section is very full and the majority of the illustrations are admirable and very faithful representations of the various bones. In the case of a few of the smaller bones of the face and carpus the illustrations leave something to be desired; if drawn on a larger scale they would probably have been more distinct and of greater educational value.

A very useful feature of the atlas is the attention which is given to the development of the various bones. This is fully illustrated with drawings from nature taken at various ages and forms to our mind one of the distinctive features of the atlas. By comparing these drawings with the statements given in the various text-books the reader gains some idea of the wide variations in the time of appearance of the individual centres of ossification. Care has been taken in every case to impress the fact that in continental nomenclature the term "month of fœtal life" indicates a period of four weeks and not a calendar month as with us. The atlas is of handy size (8½ × 11½ inches) and is not unduly heavy. It forms a useful supplement to any of the ordinary text-books of anatomy.

Handbook of Surgical Anatomy. By G. A. WRIGHT, M.A., M.B. Oxon., F.R.C.S. Eng., Professor of Systematic Surgery in the Owens College; Surgeon to the Manchester Royal Infirmary, &c.; and C. H. PRESTON, M.D., B.S. Lond., F.R.C.S., L.D.S. Eng., Lecturer on Dental Anatomy in the Owens College; Assistant Dental Surgeon to the Victoria Dental Hospital of Manchester. London and Manchester: Sherratt and Hughes. 1903. Pp. 202. Price 4*s.* 6*d.* net.

Dr. Wright and Dr. Preston have produced a concise and very readable little handbook of surgical applied anatomy. They are careful to disclaim any originality in the matter contained but have evidently made a careful selection of the more important anatomical facts having a direct bearing upon surgical practice. One section of the book, however, does appear to be a new departure in volumes of this sort: an instructive series of facts in dental anatomy is included. The reason given for this addition is the fact that medical and dental students receive much of their anatomical instruction together at the Manchester School. We should like to see a similar section in all books on applied anatomy; it would be profitable to all readers. The subject matter of the book is well arranged and the marginal notes in bold type facilitate reference to any desired point. The order adopted is upper extremity, neck, face, head, teeth, thorax, back, abdomen, perineum, pelvis, and lower extremity. All parts are as fully dealt with as could be expected in a book of this size. There are one or two obvious slips. The nerve-supply of the palmaris brevis is said to be from the median but this is not so serious a mis-statement as the information that the lowest six dorsal nerves arise between the fourth and first lumbar spines. Surely this should read "between the fourth and ninth dorsal spines." The name of Landrevt associated with the paraduodenal fossa is a misprint for Landzert. We have heard of Sylvia but not in connexion with a fissure of the cerebrum. The ascending parietal convolution is still credited with motor functions and the sigmoid flexure is described in the old and

very misleading way. Reference is made to removal of the prostate but the anatomy of the process receives the scantiest attention, which is a pity. We should like to see some warning of the frequent variations of the brachial artery. On the whole, however, the book is trustworthy and well worth perusal.

Atlas der Deskriptiven Anatomie des Menschen. (Atlas of Human Descriptive Anatomy.) By Dr. J. SOBOTTA, Professor of Anatomy in the Anatomical Institute at Würzburg. First Section: Bones, Ligaments, Joints, and Muscles. With 34 Coloured Plates and 257 Coloured Illustrations by K HAJEK and A. SCHMITSON. Munich: J. F. Lehmann. 1904. Pp. viii. + 229. Price 20 marks.

Grundriss der Deskriptiven Anatomie des Menschen. (Essentials of Descriptive Anatomy.) First Section: Bones, Ligaments, Joints, and Muscles. By the same author. Munich: J. F. Lehmann. 1904. Pp. 207. Price 4 marks.

THE atlas is the second volume of Lehmann's series of medical atlases. It fully maintains the high level of excellence attained by the first atlas which was devoted to topographical and applied anatomy. The present volume is the pioneer of a series of three illustrating descriptive anatomy and contains figures of the bones, the joints, the ligaments, and the muscles of man. The number of plates and illustrations is very large and they are all of a satisfactory size. A short description is attached to each figure in the atlas and in addition in the accompanying volume of Essentials of Descriptive Anatomy a more detailed and systematic account of the structures illustrated is to be found. The illustrations are all of great merit and many of them are very beautiful reproductions in colour; most are very true to nature and are exceedingly useful in reviving a visual image of parts and their relations. We have no doubt that the Atlas and Essentials together will be found very useful by those desirous of revising their knowledge or of refreshing their memories of the more salient anatomical facts. Naturally, in such a work as the Essentials the author does not profess to go into minute details but deals with the broad facts of descriptive anatomy only. This object he very successfully achieves; therefore it is for revision and for revision only that we recommend the work. The artists are to be cordially congratulated on the result of their labours and the publisher on having the enterprise in issuing so fine an atlas at a moderate price.

LIBRARY TABLE.

The Refraction of the Eye: A Manual for Students. By GUSTAVUS HARTRIDGE, F.R.C.S.Eng. Twelfth edition. With 105 Illustrations. London: J. and A. Churchill. 1903. Pp. 266. Price 6*s*.—Mr. Hartridge's modest treatise is rapidly becoming a portly volume and certainly now contains all that the ordinary practitioner and even the specialist need know in this department, unless he is desirous of following out the subject of refraction into details which demand a thorough knowledge of mathematics. As it was one of the first in the field and has run through 11 editions, Mr. Hartridge has been able to correct the trifling defects that were present in the first edition, to weed out unimportant statements, and to expand those that his more mature experience has taught him are often misunderstood by students. The chapter on retinoscopy is written in a particularly clear and intelligible style and gives many examples which, if comprehended, will guide the practitioner to the appropriate treatment of analogous cases.

The Practical Details of Cataract Extraction. By H. HERBERT, F.R.C.S. Eng., Major I.M.S. Second edition. London: Baillière, Tindall, and Cox. 1903. Pp. 114. Price 4*s*. net.—We have so recently had occasion to call attention to Major Herbert's work which gives the results of his large Indian experience that it is unnecessary to say more than to congratulate him upon so speedy a demand for a second edition. The number of operations from which he draws his conclusions is far in excess of that which falls to the lot of most European surgeons, for in the short space of one year and seven months Major Herbert performed 1374 extractions (linear operations excluded). Amongst all these chloroform was only employed twice. The details of the method adopted with extraordinary success by such an operator must needs be worthy of careful study.

Christmas and New Year Greeting Cards.—A varied assortment of these souvenir cards has reached us from Messrs. Raphael Tuck and Sons, of Moorfields, London, E.C. Their productions this season comprise some 1600 new varieties all of which are beautiful in design and appropriately worded. The demand for cards of friendly greetings has increased year by year largely in consequence of the artistic effects now to be obtained by the developments of the photographer's and colour printer's technics, and Messrs. Raphael Tuck and Sons have been quick to use these developments in their manufactures.

New Inventions.

A NEW MODEL EAR FOR THE STUDY AND PRACTICE OF OTOSCOPY.

THE accompanying illustration shows the form of a new model ear constructed by Mr. F. Davidson 140, Great Portland-street, W. It is made of a composition which lends itself to the necessary manipulation. A slit is cut in the wall of the meatus, so that the discs on which the lithographic reproductions of the drawings of different conditions of the drum membrane are mounted can be readily

inserted. The series of illustrations comprises 25 for the right and 25 for the left and are of perforations, retraction, inflammatory and other conditions. The brass stand, which is hinged to allow of the model ear being tilted to any desired angle, is fixed by a clamp to a table and examination can be made exactly as with the human ear. The drawings have all been done by Mrs. Davidson.

J. B. BALL, M.D.,
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THE LANCET.

LONDON: SATURDAY, DECEMBER 5, 1903.

The General Medical Council and the Royal Colleges of Physicians of London and Surgeons of England.

IN the interest of peace it is, perhaps, a source of congratulation to all concerned that after the most prolonged discussion of the General Medical Council's recent session no definite conclusion was reached. The subject of consideration was the lamentable difficulty that has arisen between the General Medical Council on the one hand and the Conjoint Board of Examination, representing the Royal College of Physicians of London and the Royal College of Surgeons of England, on the other hand, and the point at issue is the power of the General Medical Council to control in any true sense the regulations which those Colleges may make for the courses of study and the examinations which are conducted by them. The matter has been repeatedly brought before our readers during the last few years and it will be remembered that the dispute turns upon the regulations and examinations in chemistry, physics, and biology, the subjects which were intended wholly, or in large part, to occupy the first year of the medical curriculum. The complaint of the General Medical Council is twofold. In the first place, it is urged that by the recognition of schools as places of study only a small amount of time is really occupied with scientific studies and that these are often pursued in circumstances which do not entitle them to respectful consideration, and secondly, that the examinations do not suffice to exclude those who only possess "an empirical knowledge of a few facts crammed up from a book or a teacher" and who have "no understanding of elementary principles." These strong comments are extracted from the report of the visitor and inspector appointed by the Council and they receive confirmation from further returns which have been supplied to the Council by the Secretary of the Conjoint Board. The conclusions inevitably forced upon the Council are that the regulations of the Colleges are injurious to the best interests of medical education in this country, and that by recognising the teaching of these scientific subjects in secondary schools, higher-grade Board schools, municipal technical schools, and polytechnic institutions as well as in the medical schools, the first year of medical study is practically wasted. This opinion has repeatedly been brought before the Colleges by the General Medical Council and in view of the inaction of these bodies Sir VICTOR HORSLEY gave notice last June of his intention to move that the insufficiency of the courses of study and examination should be represented to the Privy Council in accordance with the terms of the Medical Acts.

This motion was brought forward at a special meeting of the General Medical Council early in July last, but it was withdrawn in favour of the appointment of a committee of two members from each of the three Branch Councils to confer with representatives of the Colleges, should it appear that a conference on the questions raised thereon was desired. Doubtless this proposed committee was intended to afford the Colleges an opportunity of reaching some common ground of agreement, but all hopes in this direction were frustrated by the refusal of the Colleges to appoint representatives, which was equivalent to a politely expressed determination to manage their own affairs, while allowing that the opinions of the Council should receive respectful attention. Sir VICTOR HORSLEY accordingly proposed his motion to report to the Privy Council so as to bring about a decision as to who was the supreme authority in medical education. His speech was marked by a freedom of expression which doubtless alienated the sympathy of many. It was unfortunate that reference was made to the "authority of the Council," since this afforded Dr. NORMAN MOORE, the representative on the Council of the Royal College of Physicians of London, an opportunity to leave the question at issue—the examinations in biology, chemistry, and physics—and to direct attention to the charters and responsibilities of the two Colleges, under which he claimed that responsibility rested with the Colleges and the right of criticism with the Council. An amendment, which was couched in extremely friendly terms, suggested that the Council should defer taking further action pending the promised reconsideration of the whole subject by the Colleges and the re-inspection of their reconstructed examinations. This amendment was carried but on becoming a substantive motion it was met by a proposal that the motion be postponed and this was carried by one vote only. The present position, therefore, is that the Colleges are considering the subject, hoping to remedy all defects, so that there is some prospect of the formulation of new regulations before the Council's meeting in May. Meanwhile an open rupture has been averted and the Council has shown its determination to maintain the position which it has taken up.

Viewed from the outside the whole turmoil is much to be regretted. Neither the Council nor the Colleges can gain by futile discussions on authority or contumacy, responsibilities or charters. The common aim of all should be the elevation of medical education. The numbers of candidates presenting themselves for examination in chemistry and biology at the Conjoint Board have shown a very remarkable decrease during the last ten years, and during the last few years the numbers trained in science institutions (the term being used in contra-distinction to the medical schools) have shown a slight increase. Still, these last fall numerically far below those educated in the medical schools; for the ten years they do not amount to 7 per cent. These figures are important, since the present deadlock originated in a protest against the recognition by the Colleges of many teaching institutions which were not approved by the Council, and it is interesting to find that such "recognition" has not yet seriously influenced the medical schools. If, in spite of the fact that the numbers receiving their preliminary scientific education in institutions other than medical schools are very

small, the examinations really merit the strong condemnation of the visitor and inspector appointed by the Council, it would appear to be fair to assume that the teaching, which is guided by the character of the examinations conducted by the Colleges, must be very defective. The Education Committee of the General Medical Council does not hesitate to blame the synopses of the examinations in chemistry, physics, and biology, which in the opinion of the committee do not afford adequate guidance to the teachers as to the course of study best suited to the needs of medical students. It is to be hoped that before next May amended synopses in these subjects will be prepared and that the Colleges will seriously consider whether it is wise to continue to recognise courses of study which are conducted synchronously with ordinary school work. Many of the London medical schools undoubtedly object to the necessity of maintaining teachers and laboratories for these subjects, and in some institutions want of space forms a serious obstacle to class and laboratory work; but although these arguments are cogent they should not be allowed to reduce the utility of the first year of medical studies. Still less should such considerations be permitted to account for the presentation to the medical profession and to the public of discussions which whether termed quarrels, differences of opinion, or friction, are deeply to be deplored.

The Employment of Children Act.

THE Employment of Children Act, 1903, which will come into operation on Jan. 1st, 1904, is a measure the scope and complexity of which are equalled by the importance to the nation of the subject with which it is concerned. Its general outline is simple as becomes its practical character. It provides that no child may be employed in work for wages under 11 years of age. Between the age of 11 and 14 years labour is allowed under regulations. The statutory working time must come within the hours of 6 A.M. and 9 P.M. No employment which is believed or proved to be injurious to the individual may be carried on. A significant feature in the Act is the large discretionary powers which it places not without deliberation in the hands of local authorities. They may vary working hours, grant or withhold licences to children, restrict or entirely prohibit street-trading by girls, prohibit labour in other trades by children under 14 years of age, regulate employment in theatres and music-halls up to the same age, and generally supervise and administer the whole conduct of child labour within the districts under their control. The necessity for the effective protection of juvenile workers is brought out in a report published by the inter-departmental committee on the employment of school children. According to this paper at least 200,000 children are being employed for profit in occupations not under Home Office inspection while attending school for the full time. Very many of these, probably 50,000, are earning wages during more than 20 hours a week in addition to 27½ hours at school. A considerable proportion of this number are employed for 30, 40, and even 50 hours a week and the effect of this work has proved in many cases to be injurious to their health, morals, and education, apart from the fact that it deprives them of that due amount of recreation without which the life of a child is no better than a term of unwholesome drudgery. The committee has, therefore, embodied its conclusions in a series of propositions to the Home Secretary and the new Act may be regarded as the outcome of its representations. Certain of its suggestions have been particularly brought by the Act under the notice of local authorities. These include the licensing of all children employed for profit, the prevention of work injurious to health, including the moving of heavy weights, the question whether systematic labour of any kind or street-trading should be permitted at all during the ordinary school age, and the inadvisability of allowing girls at any age, and especially under 16 years, to trade in the streets. All the witnesses who gave evidence before the committee spoke forcibly as to the mischievous effects on character which result from the employment of girls in this way. Some other occupations are, in the view of the committee, also undesirable for children on the evidence of witnesses examined by it. Among these are service in public-houses, in small laundries, and in the lower class barbers' shops. The committee further proposes that the employment of children in any calling should never exceed 20 hours a week, of which not more than eight are on Saturday, and that work before school, during the dinner hour, and after 8 P.M., as well as all Sunday work, should be disallowed. Whatever may be thought of the Act and of the suggestive corollaries by which it is accompanied it is sufficiently clear that they have not been scamped or hastily thrown together. They show throughout the signs of reflection founded on experience. They do not ignore the possible advantages which have led to the systematic employment of children in this and other countries. They do not ask that it should be done away with. All that they require is that the benefit should be real and that it should not be all on one side. It must not be of that spurious variety which consists of nothing more than making children temporarily profitable to their parents and employers without regard to their physical well-being, their education, and their moral character. Alike from the domestic and from the national point of view the years from six or seven up to 14 are not properly wage-getting years. They are years of development. In this period the man or woman is made if ever to be made. If those years are diverted from their natural purpose there can only be one result—a weakening in bodily health, in intelligence, and in the sense of moral obligation which gives tone and fibre to the conduct of life. For this reason we are unable to see how any but light work and comparatively little of that can be expected of children during the school period. Their proper work is to be trained and to train themselves. The statutory hours devoted to this purpose fill in the greater part of a day. Then there are meal-times, a reasonable interval for recreation, and, we must add—and this is very often forgotten—time for the preparation of school lessons at home. There can thus be little more than an hour or so per day for wage-earning save perhaps on Saturday and we should be sorry to see the whole of that day applied to money-making labour. We have no idea of proposing any cast-iron regulations

but we do think it necessary that local authorities and all others concerned should regard this business of training as quite the most serious consideration during the period allotted to it. Not even parental necessities are entitled in the nature of things to find systematic relief at its expense. To use it for this purpose would be a suicidal policy, inasmuch as education, which is the future of the child and of the nation, may not be interfered with except at a loss which will fall on the next generation. We admit a lively sympathy with the recommendation that street-trading by girls should be restricted, if not prohibited. This is a form of employment for which little can be said. Its unsettled character and precarious remuneration are unfavourable features, while it implies in the case of girls obvious dangers and temptations. It has only one advantage—that it is carried on in the open air. If permitted there can be no question that it should be regulated with much greater care than has hitherto been the case.

The Rebuilding of St. Bartholomew's Hospital.

THE City of London, the very medulla of the greatest empire which the world has ever seen, has but one hospital. It was founded nearly 800 years ago by a pious citizen with the help of the donations of the charitable. It served the sick, the poor, and the maimed, whose interests were looked after by the Augustinian canons of the Priory of St. Bartholomew up to the time of the spoliation by HENRY VIII., and after that time by the care and skill of laymen who gave their time and knowledge ungrudgingly. Generations have come and gone, buildings have decayed and have been restored, fire and pestilence have swept over London, and still St. Bartholomew's Hospital stands where it did as a memorial to all men of RAHERE and of the charity which it is the special boast of Christendom to feel for the poorer brethren. But with increasing knowledge, increasing population, and increasing facilities for intercommunication there has come, as an inevitable sequel to the march of 800 years, the absolute necessity for expansion and for repair.

For years past the medical staff of the hospital has been impressing upon the governors the crying need that exists for new buildings and for more land upon which to erect them; and the present is a fitting opportunity for us to recapitulate what we have said upon previous occasions as to the position in which matters stand, especially as some of the communications made to the lay press and to our own columns have not helped in making the issues clear. The area of the existing site now occupied by St. Bartholomew's Hospital is about four and a half acres. When it was known that Christ's Hospital was going to be moved from the City it was hoped that a great part, if not all, of the site of that institution might be secured for its neighbour, but owing to lack of means the authorities of St. Bartholomew's Hospital considered that it was only possible to purchase a small portion of land—an area of between one and one-third and one and one-half of an acre. The sum paid for this, the amount being fixed by arbitration by Lord BALFOUR of BURLEIGH, was £238,781. St. Bartholomew's Hospital is therefore now in possession of some six acres of land upon which to erect new buildings and to renovate existing ones, so as to put in hand reforms which are not merely desirable but absolutely necessary. For this purpose the Mansion House Committee has decided to appeal to the public for a sum of £350,000. This amount, it is calculated, will provide new buildings and other adaptations which will suffice for the needs of the hospital—i.e., for the needs of the poor and necessitous whom it serves—for some 20 years to come. But the great and serious question remains:—Will such a tentative and partial scheme be satisfactory? In our opinion there can be but one answer to this, and that answer is No. We feel that it would be a wiser policy for those in whose hands lies the government of St. Bartholomew's Hospital to take a bold step forward, to acquiesce in the recommendation of the medical staff, and to make it their endeavour to purchase at least two more acres of land. Sir TREVOR LAWRENCE, the treasurer of St. Bartholomew's Hospital, in response to much acrid and some ill-informed criticism, has replied in a letter, which appeared in the *Times* of Dec. 1st that the governors would be only too willing to purchase more land were it not financially impracticable. His view is that the governors "would be wholly without justification were they to ask the public to give them an additional £320,000 to buy a further two acres of Christ's Hospital site. Such a purchase would bring the cost of land and new buildings together to at least a million." We are certain, with the treasurer of St. Bartholomew's Hospital, that the governors would be willing to buy more land, for they must be quite as much impressed with the necessity of acquiring more land as we are ourselves. But where we join issue with him is in his assumption that such purchase is impracticable. The scheme of renovation as at present set out is a temporary one. It may provide for the present situation, it may even suffice for a quarter of a century; but then, in less than a generation, the trouble will recur. Although two generous donors—namely, Her Majesty the QUEEN and the Worshipful Company of Mercers—have already given £1000 respectively towards the building fund, while the Goldsmiths' Company has subscribed £2000, the great mass of the population, both rich and poor, have not yet been approached. Unless one or two millionaires seize this very favourable opportunity of linking their names with those of RAHERE and GUY the money will be obtained from the ordinary hard-working citizen, and he is a very shrewd and practical person. Such a man will not give even £1 towards a scheme which can be justly described as imperfect and without finality. Let the governors and the Mansion House Committee be bold and appeal with confidence for £800,000 or even for £1,000,000. If the Wesleyan community could raise a like sum for the purchase of the site of the Westminster Aquarium and for erecting buildings on the same and elsewhere, surely the citizens of London, the people of the British Isles, to say nothing of those beyond the seas, could be at least asked to do the same. Patients come to St. Bartholomew's Hospital from all parts of this empire. The hospital has sent out its sons to battle with disease and death in every quarter of the globe. Surely before folding

the hands and saying "it is impossible" an attempt might be made. If it should fail the hospital will be in no worse plight than it is at present and the governors would not be oppressed with the uneasy feeling that they might have succeeded had they made the attempt.

The Lord Mayor has promised to call a meeting of the citizens of London at the Mansion House on Jan. 26th, 1904, when the governors will lay before them the plans of the proposed renovations and the sum of money required. We can only reiterate our hope that the governors will propound a large scheme, as final in its effects as anything can be in this world, and one which will set upon a sure ground the ancient foundation of St. Bartholomew's Hospital. The hospital has played a noble part in solacing the sick and weary through many hundreds of years and for the furtherance of that merciful work is in sore need of money. The sum required is large; there are other charitable institutions which are in equal need of help; and St. Bartholomew's is a well-endowed charity. We know all this but we also know that a grave expenditure of money is necessary and that half measures will in the end prove an extravagance. We are sanguine that if it be only made plain that the renovation to be carried out will be thorough and lasting the money will be forthcoming from the largest and richest city in the world.

Annotations.

"Ne quid nimis."

THE FINAL REPORT OF THE ROYAL COMMISSION ON ARSENICAL POISONING.

THE final report of the Royal Commission on Arsenical Poisoning now on the eve of publication contains many points of interest with which we shall deal in a subsequent issue. The report is a valuable, we may almost say exhaustive, document, so large an amount of ground does it cover. The first part comprises a discussion of the medical and public health aspects of the question of poisoning by small doses of arsenic introduced by way of food or drink, an examination of further facts regarding the epidemic of poisoning due to beer in 1900, and an account of the similar outbreak in Halifax in 1902. Another section is devoted to the question of tests for arsenic in food and in substances used in food preparations, while other sections deal in detail with the various ways in which articles of food and drink may be contaminated by arsenic in the absence of sufficient precautions. Information is also given with regard to the degrees of purity which are obtainable commercially. The commissioners conclude with a review of the unsatisfactory condition of the present law and its administration in respect of food and drugs and make a series of important recommendations to secure improvement. In this brief *résumé* we have said enough to show not only that the report is a thoroughly interesting and valuable one but that the medical profession will expect legislation upon the lines of the recommendations of the commissioners.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

IT may be within the knowledge of our readers that two years ago King Edward's Hospital Fund felt constrained to refuse a grant to that excellent charity the Royal Westminster Ophthalmic Hospital because of the unfortunate environment in which its splendid scientific work was being done. The building was terribly out of date and out of repair. Those responsible for the hospital were perfectly aware of its plight and bravely set to work to face the situation. They constructed an entirely new out patient department on modern lines, enlarged and improved the wards, and generally perfected their building for its great objects. The visitors in connexion with King Edward's Hospital Fund, having seen the improvements, made a satisfactory report upon the hospital, the result being the grant from the Fund of a substantial sum; but the work of repair has cost the hospital much money and the charity, it must be remembered, is a poor one, for only poverty had prevented the management from making the improvements before. We understand that a sum of £2500 is due to the bankers. The comparatively modest wants of the Royal Westminster Ophthalmic Hospital ought not to go without response; an admirable charity, with which some of the chief ophthalmic surgeons of the country have been connected, and which is doing, and for many years has done, most valuable work among the poor ought not to seek assistance from the public in vain.

RADIUM AND TRANSMUTATION.

RADIUM still occupies the premier position as regards research and attention by scientific men. And no wonder need be expressed that such is the case considering that as its properties are studied fresh revelations of a most remarkable kind are made. These revelations will be received with joy by those who cherish the view that the elements, in spite of their diversities of character, are after all but transmutations of one stuff. The hypothesis is attractive and several important and modern lines of research have been directed towards raising it to the dignity of theory if not to ascertained fact. In this connexion Sir William Crookes's investigations on radiant matter rank first. By his brilliant researches he was at length able to say, "we have actually touched the borderland where matter and force seem to merge in one another." Then came the recognition of radiant matter as electrons. In the meantime that wonderful property of certain elements—radio-activity—was being very carefully investigated, until at last perseverance and skill were rewarded in the discovery of that mysterious element now known as radium. The discovery of the x rays was a great stimulus to this path of research. Apparently remote, however, from the study of radiant phenomena was the discovery of argon in the atmosphere which in its turn led to the discovery of helium. As a matter of fact the most remarkable property of radium would probably have escaped observation had not helium been discovered and its properties made known. The energy manifested by radium is not due to radium at all but to the radio-active emanation which it produces from itself and these emanations would appear to be inert gases, perhaps argon or members of the argon group. The fact that helium was found in minerals containing uranium suggested that helium might be connected in some way with radio-activity. Eventually Sir William Ramsay and Mr. Frederic Soddy showed that though the fresh emanations from radium did not exhibit the spectrum of helium, yet as the radio-activity dies down helium is produced in small but in ever-increasing quantities. Helium would thus appear to have been born so to speak out of the emanations. Are these emanations related closely to the primordial matter, out of which all the elements known to chemistry by process of ages have been elaborated? We are thus brought face to face with the old theory of transmutation and a fresh light is thrown upon the genesis of the elements. Nature would seem to abhor elements of high atomic weights and her tendency is to resolve them gradually into elements of lower atomic weights. Just in the same way complex molecules in the organic

world tend to break up into simpler substances. The great life processes elaborate complex materials, but as soon as these processes cease there is a resolution into simpler products accompanied by a loss of energy. Is it a kindred process in the inorganic world and are the elements of high atomic weight slowly disintegrating in favour of elements of lower atomic weight? If so, the dream of the alchemist may after all be realised. Gold is possibly being slowly resolved into copper or metals of a lower atomic weight than itself by a process of natural decay but transformation of copper into gold is by natural agencies improbable. According to this view some explanation may be found of the existence in nature of the metals known as noble in limited quantities; unless a method is forthcoming, however, by which the reverse process becomes possible gold may for ever remain a standard of currency as its dissolution would be so slow. The native amount may diminish but not sensibly in a very great period of time. If by artificial means, however, what appears to be the natural tendency can be overcome and reversed copper or tin or lead may be resolved into gold. Theoretically, such an accomplishment may come to be no more wonderful than is the building up of sugar or alcohol from its elements at the present time. Apart from speculating it is a wonderful thing that radium has shown that there exist in nature minerals containing elements of high atomic weight which have a tendency to crumble, so to speak, into elements of a lower atomic value, in consequence of which possibly the distribution of elements of relatively low atomic value, such as hydrogen, sodium, silicon, and oxygen, is common. This view leads us, naturally, to wonder whether the noble elements exist at all in burnt-out worlds.

DISTRICT COUNCILS AND SANATORIUMS FOR CONSUMPTION.

A Local Government Board inquiry of considerable significance and importance as regards the future development of the sanatorium movement was held last week at Swindon. The occasion for the inquiry was an application on the part of the Cirencester and Highworth rural district councils for sanction to borrow £250 each in order to make a capital contribution to the funds of the Winsley Sanatorium which is at the present time in course of erection at Winsley, near Bath, for cases of pulmonary tuberculosis occurring in persons other than paupers who are resident in one of the three counties of Gloucestershire, Somersetshire, or Wiltshire, or in the city of Bristol. Special interest attaches to the inquiry in that it is the first of its kind which has ever been held and if the Local Government Board sees fit to sanction the loans in question a precedent will have been created which is likely to be somewhat widely followed. In each case the capital sum referred to will secure to the contributing authority a right to nominate a suitable patient to the sanatorium subject to an annual payment by the contributing authority of £65. Such contribution will also enable each of the rural district councils to nominate a trustee for the land and building and to appoint a member of the committee of management. Some discussion took place at the inquiry as to the period over which the repayment of the loan should be spread and it appears that both district councils were prepared to accept the suggestion of the Local Government Board that as the arrangement between the sanatorium authorities and the district councils could be terminated by the district councils at any time after the expiration of five years the borrowed money should be repaid within that period. Probably there would have been no objection to sanctioning a loan for a longer period than five years had the arrangement between the district councils and the sanatorium trustees been permanently binding. The capital sum proposed in this case is certainly moderate for a permanent stone structure such as is here in question and the annual payment of £65 is also eminently reasonable. Of course, if what is known as a "temporary" or wooden structure were being erected in this instance a charge of £250 would be excessive and it remains for the future to determine whether the elaborate stone building so common in Germany or the chalet system which is to be found in vogue in certain sanatoriums in this country is the more satisfactory or economical method of dealing in part with the problem of pulmonary tuberculosis. The Winsley Sanatorium is intended for the accommodation of 60 patients and already a considerable number of the beds have, it appears, been taken up by local authorities such as the Bristol, Bath, Gloucester, and Swindon town councils. In these cases, however, the capital contributions are presumably being paid out of the current rates and no application to borrow money has been made. The application here referred to was, we see in the local press, supported by, among other medical men, Dr. F. T. Bond, medical officer of health of the combined Gloucestershire districts; Dr. Lionel A. Weatherly, chairman of the executive committee of the sanatorium; and Mr. J. Tubb-Thomas, county medical officer of health of Wiltshire. Obviously the decision of the Local Government Board will be awaited with great interest and it seems to us that we have in these proposals a means whereby a small local authority with but little money to spare may make an important experiment with a minimum of expenditure and that in the future such experiments can either be terminated or indefinitely extended. So many exaggerated statements have been spread abroad as to the actual value of sanatorium treatment by those who do not grasp sufficiently the problem involved that it would be deplorable were small local authorities at once to embark upon elaborate and expensive schemes under the belief that they would by this means stamp out tuberculosis in their districts. In the past there has been much overstatement in other directions and unfortunately some of the chickens are now coming home to roost. It is for this reason that we are able cordially to support the scheme put forward by the Cirencester and Highworth rural district councils.

THE CASE OF DR. LACHLAN GRANT.

Another step in the dispute between the Ballachulish quarriers and the directors of the quarry company has been taken. On Nov. 16th a deputation of the quarriers had a meeting with three of the directors and with the secretary of the company. The directors submitted proposals to the men regarding the question of Dr. Lachlan Grant by which it was agreed that the men should be empowered to appoint their own medical man and that if they appointed Dr. Grant the company would withdraw its interdict against him. To this the men agreed and as the labour questions had also been satisfactorily settled it appeared that the end of the long fight was close at hand. On Nov. 19th, however, the men's agents received word that the directors had met on the day previous and had withdrawn this offer. The men thereupon very pluckily refused all the terms offered, saying that they would stand by Dr. Grant, so that matters are still *in statu quo*. Of course, however, a great advantage has been gained by the men in that three at least of the directors have agreed to settle the medical question as the men wish and it is to be presumed that Colonel Malcolm, who seems to be the head and front of the pigheaded attitude taken up by the company, will before long find that he is not acting in the best interests of the shareholders, many of whom, it is stated, are beginning to feel disgusted at the manner in which their directors have

acted. No praise can be too high for the honourable and faithful way in which the men have acted towards their medical man. We pointed out in our issue of Oct. 24th, p. 1180, that the company had conceded one point and we are certain that if the men hold out, and it seems certain that they will do so, the shareholders will insist on the matter being settled in the men's way with or without the coöperation of Colonel Malcolm.

THE CENTRAL MIDWIVES BOARD.

AT the last meeting of the Central Midwives Board letters were read from the clerk of the Worcestershire county council and the medical officer of health of the county borough of Croydon, inquiring whether illiterate women unable to sign their own names were eligible for enrolment under the Midwives Act. The secretary was instructed to reply that the Board had no option to refuse applications from illiterate women. A claim for enrolment on the ground of having been in *bonâ-fide* practice as midwife for the statutory period within the Commonwealth of Australia was also allowed, the Board deciding that there was nothing in the Act to limit the area of midwives' practice to the United Kingdom. The Board, on consideration of applications for certificates, passed the names of 213 women for entry on the official roll, 143 being admitted as having been in *bonâ-fide* practice as midwives for one year prior to July 31st, 1902. From the proceedings at the last meeting of the Midwives Board it looks to us as if the new and official midwives will include for some little time some of those persons whose undoubted failings supplied the arguments for legislation.

SUBPERITONEAL RUPTURE OF THE BLADDER WITH ANOMALOUS SYMPTOMS.

THE following case, published in the *Scottish Medical and Surgical Journal* for November by Dr. W. Stewart, is of interest on account of the great difficulty of diagnosis. A man, aged 40 years, who had been drinking heavily, was while walking seized with pain in the lower abdomen so severe that he fell. The pain continued and vomiting came on. On the fifth day he was admitted to hospital suffering from pain in the lower abdomen, most intense over McBurney's point. He had not retained food since the onset and the bowels had not acted but flatus was passed. He said that he had no difficulty in micturition. The pulse was 78 and the temperature was 98·8° F. There was a purpuric rash over the body. The lower abdomen was tender and distended. The distension evidently was due to a large swelling, resembling a six months gravid uterus displaced to the right, which extended from the pubes to the umbilicus and from the right iliac fossa to the left beyond the middle line. It was firm, dull, very tender, and distinctly margined. Rectal examination showed that it did not extend into the pelvis. He passed much urine without difficulty. A No. 10 rubber catheter was easily passed and about nine ounces of clear urine containing a few dark-brown granules were drawn off. The urine did not contain albumin or blood. An enema gave a good result. On the sixth day the pain was less, he still vomited, and there was occasional hiccough. Laparotomy was performed by an incision midway between the umbilicus and the anterior superior spine of the ilium and parallel to Poupart's ligament. On opening the peritoneum from two to three quarts of clear, yellow, inodorous fluid gushed out. There was no smell of urine. The incision exposed the edge of a dark, smooth swelling, about an inch in thickness, extending upwards to the umbilicus. A coil of congested small intestine was adherent to it by means of recent lymph. On incision the swelling showed only blood-stained tissue and extraperitoneal fat. No tear in the bladder could be discovered. The abdomen was washed out, drained, and closed. The patient recovered from the operation but became gradually weaker and died on the ninth day. The necropsy showed recent adhesions between the intestines and anterior abdominal wall. There was no fluid in the peritoneal cavity. In front of the peritoneum and behind the pubes to the right was an infiltration of the tissues with greenish-brown non-fœtid fluid. On incising the bladder an aperture of the size of a pea was found communicating with the retropubic infiltration. In this case ruptured bladder seemed to be excluded by the normal micturition and the withdrawal of a fair amount of urine by the catheter. The swelling was undoubtedly due to extravasated urine. Dr. Stewart thinks that it percolated by osmosis into the peritoneal cavity, which accounted for its loss of odour. He regards the case as a warning against delay, for if the swelling had been incised on admission the urine would have been drained off and would not have passed into the peritoneal cavity.

THE TREATMENT OF SURGICAL TUBERCULOSIS IN CHILDREN.

THE following resolutions have been passed by the Society for the Study of Disease in Children :—

1. The Society for the Study of Disease in Children desires to express the opinion that the conditions under which children suffering from surgical tuberculosis—that is to say, tuberculosis of bones, joints, glands, and skin—are treated at the present time are unsatisfactory in result and unscientific in plan.

2. The Society is convinced that the treatment of such cases in urban hospitals cannot be justified by the results, but is attended by much unnecessary suffering and by many preventable deaths. The present haphazard methods are not economical but lead to a wasteful expenditure of time and energy and of hospital funds.

3. The Society is of opinion that children suffering from surgical tuberculosis should not be treated in hospitals situated in cities or large towns, but in properly equipped institutions in the country or at the seaside, such hospitals to be devoted to the treatment of such cases only, in the same way as open-air sanatoria are devoted to the treatment of pulmonary tuberculosis.

4. The general principles upon which such a hospital should be conducted are as follows :—

(*a*) No child shall be considered too young for admission into such a hospital and provision should therefore be made for the reception and care of infants.

(*b*) A patient should only be admitted into such a hospital with the intention of treating the case to a termination—that is to say, that a patient should not be discharged from the institution until, in the opinion of the surgeon, the child has recovered or is proved to be incurable.

(*c*) Special institutions should be provided for the segregation and care of cases pronounced to be incurable.

The Society for the Study of Disease in Children will find the members of the medical profession in agreement with its view. Who is going to pay for the erection and maintenance of these hospitals remains a question for discussion.

ANKYLOSTOMIASIS IN WESTPHALIA.

AN interesting report by Dr. J. S. Haldane upon ankylostomiasis in the Westphalian collieries has just been issued.[1] Ankylostomiasis is primarily a disease of tropical and subtropical countries but an outbreak at the Dalcoath mine, Cornwall, has recently been described by Dr. Haldane and Dr. A. E. Boycott,[2] and in Westphalia the disease has assumed considerable proportions during the last few years. Except for an isolated case reported in 1886 the first cases in this district were observed in 1892 and up to 1895 23 cases had been recorded. Last year, however, up to October no less than 1355 cases distributed among 69 collieries were met with. The German Government is now taking active steps to stamp out the disease. In every colliery at least 20 per cent. of the men employed underground are selected by a properly qualified medical inspector and their dejecta are examined by him on at least three occasions. Any man found to be infected is treated and is not allowed to

[1] Ankylostomiasis in Westphalian Collieries. Report to the Home Office, 1903.

[2] Journal of Hygiene, vol. iii., No. 1, 1903, p. 95.

resume work until he is free from the parasite. If the mine should prove to be badly infected the whole of the men employed underground are examined and if necessary treated, every man who has been treated being re-examined monthly for three months. No new hands are allowed to be engaged unless first proved to be free from the disease. In addition sanitary receptacles for the use of the men underground have to be provided and are emptied and disinfected daily. The sick men are treated in hospital and if they have dependents receive sick pay. Rooms are provided at the colliery for the use of the inspector and three specimens from each sample of dejecta are examined microscopically. The treatment usually adopted is as follows:—The patient receives in the evening five grains of calomel and in the morning on an empty stomach from two to three drachms of extract of male fern, followed by another five grains of calomel in the afternoon. On the third day a dose of calomel is given in the evening if required. On the fourth day the dose of male fern is repeated in the morning and the calomel in the evening. The fæces are then examined for ova on the next six days and if ova are not found the patient is discharged. If ova be present the whole course of treatment is repeated. Male fern seems to be preferred to thymol.

EPSOM COLLEGE.

THE governors of the Royal Medical Benevolent College unanimously decided at a large and representative general meeting held on Nov. 26th, under the presidency of the Earl of Rosebery to change the name of the institution to "Epsom College" and to add the following sub-title to all documents issued from the office of the charitable side of the work in London: "Established in 1855 as a Public School with a Royal Medical Foundation." It is a happy coincidence that the council should have selected the fiftieth anniversary of the laying of the foundation-stone of the college at Epsom for proposing an alteration in the title which has for a long time appeared desirable to many governors intimately connected with the institution, and even those conservative supporters who have been disinclined to favour a change must grant that the council has given very careful thought to the matter before coming to a decision. We have no hesitation in saying that to medical men "Epsom College" will always appeal as an institution quite as worthy of generous support as when it bore the now discarded title with the "superabundance of adjectives" as Lord Rosebery humorously described it a few years ago, and to the charitable public the objects of the benevolent side of the work will be perfectly clear in the sub-title "Royal Medical Foundation." The new brief title is now linked with the foundation of the college by Mr. Propert close upon 50 years ago, and prominence is given to the fact which has been stated in these columns time after time that the college is a public school able to hold its own amongst the great schools of the country, whether looked at from the point of view of educational results, of scientific equipment, or of successes in the playing fields. It may be added that friends of the institution have hoped for years that in due course an adequate foundation will be established in order to make secure for all time the 50 pensionerships and the 50 foundation scholarships which have been maintained for many years, instead of leaving them dependent upon the precarious income derived from donations and annual subscriptions. But the realisation of this hope rests almost entirely in the hands of members of the medical profession, for whose benefit the institution was founded, and when making testamentary dispositions those of them who are well endowed with this world's goods should remember that their less fortunate brethren have a strong claim on their charity through the medium of this institution. That the teaching and scientific equipment of the college are good is undoubted and we have frequently drawn attention of late to the educational successes. As to the athletic work of the school, both the Prince of Wales, who recently paid a visit to the college, and the President, Lord Rosebery, who, as a neighbour, is often in the playing fields, have referred in warm terms to this important feature. The college has certainly all that can be reasonably expected for the welfare of its scholars with its extensive playing fields, an excellent swimming bath which has recently been reconstructed at a cost of about £1000, a detached sanatorium, a well-equipped laboratory enlarged only a year ago, a lecture theatre, a lower school capable of accommodating 100 junior boys, fives courts, a biological laboratory, a modern laundry, a carpenter's shop, and a system of drainage which has been carefully arranged under expert advice in recent years at great expense. The fee charged for sons of those not members of the profession, 75 guineas, is a moderate one; sons of medical men obtain a reduction of 10 guineas; there are entrance scholarships of £30 a year, and there are "council exhibitions" for the sons of less fortunate members of the profession, which reduce the fee to 35 guineas. We have already referred to the foundation scholarships for the necessitous sons of medical men, the holders of which are educated, clothed, and maintained free of cost. Owing to the generosity of the hospital authorities there are numerous scholarships at the hospital schools in London ranging in value from 120 guineas to £150, and through the liberality of living and deceased friends of the college there are also a number of scholarships and exhibitions for science and classics from £30 to £60 in value for boys leaving to go to the universities. With the foregoing advantages, with a college standing on high ground in its own estate of about 80 acres in a district renowned for the purity of its air, and with the removal of the "meaningless but distasteful word 'benevolent,'" as Lord Rosebery described it at the meeting, may we not safely echo the prophecy which his lordship uttered that the day of that meeting will mark a new era of prosperity in the history of Epsom College.

KORSAKOFF'S DISEASE, OR PSYCHOSIS POLYNEURITICA, IN WOMEN.

FIFTEEN years ago the late Professor Korsakoff of Moscow described an assemblage of symptoms met with most frequently among chronic alcoholic subjects which he termed "psychosis polyneuritica." The cardinal features of this affection, according to him, were peripheral neuritis, amnesia, and pseudo-reminiscence (false memories of events which have not occurred in the patient's life). In the *Journal of Mental Science* for October Dr. John Turner, assistant medical officer of Essex County Asylum, gives an account of 12 cases of psychosis polyneuritica occurring in women. Recent observers who have studied the subject state that alcoholism is accountable for nearly three quarters of the cases of psychosis polyneuritica but that it also follows typhoid fever, childbirth, pyæmia, and arsenical poisoning. Oppenheim, however, states that he could find no cases with the characteristic psychic disturbances in other than alcoholic subjects. The psychical disturbance present is a form of mental confusion of toxic origin. Common features noted by many observers are the happy disposition and feeling of self-satisfaction of the patient. Soukhanoff and Boutenko,[1] analysing a total of 192 cases, personal and collected from literature, find that 112 were males and 80 were females. There was not much difference in the age of onset in either sex; the greater number of cases occurred in both sexes between the ages of 30 and 50 years. All the cases in

[1] Journal of Mental Pathology, vol. iv., 1902.

women and about 91 per cent. of the cases in men presented marked multiple neuritis. The 12 cases recorded by Dr. Turner all presented the cardinal features insisted on by Korsakoff and other writers—viz., amnesia, disturbances of the patient's notion as to his position in time and space (disorientation), false memories, and a tendency to invent fabulous explanations of real occurrences (confabulation). Probably in all the cases and certainly in ten, says Dr. Turner, peripheral neuritis was present. "Over-indulgence in alcohol was ascertained in ten and was highly probable in the other two." The speech was "thick" in two cases, "drowsy" in another, and normal in the rest. Jolly and Bonhoffer look upon Korsakoff's disease and delirium tremens as closely allied affections, for in addition to the mental confusion (delirium) there is often a condition of tremor and jactitation of the limbs and the patient seems to be suffering from visual hallucinations (of animals) and fright. Four of Dr. Turner's patients "partook largely at one period of their illness of symptoms of delirium tremens" with visual hallucinations. As regards prognosis two died after a month's and after four years' residence in the Essex County Asylum respectively, three of the cases remain unrecovered in the asylum, and seven out of the 12 cases were discharged but of these the memory remained seriously impaired in four, so that only three out of the 12 could be fairly regarded as recovered. Dr. Turner is inclined to agree with Jolly that the term "Korsakoff's disease" includes a definite group of morbid conditions fulfilling some of the conceptions of "a disease."

THE NATIONAL DENTAL HOSPITAL.

Mr. John Tweedy, President of the Royal College of Surgeons of England, presided at the annual dinner of the past and present students of the National Dental Hospital, which was held at the Trocadéro Restaurant, Piccadilly-circus, London, on Nov. 27th. Mr. Tweedy, in the course of proposing the toast of "The National Dental Hospital and College," said that dentistry in the present day had reached a high plane of excellence. In his opinion the spirit that animated the practitioners of dentistry was different from that which he had noticed in his youth. In those days, referring particularly to the country districts, the blacksmith was very often the only person who had any pretension to the practice of drawing teeth. The spirit in which the modern dentist worked was that of the man of science and the philosopher, for his endeavours were directed not only to the well-being of his patients but also to the common good of the whole of the community. Mr. Tweedy, continuing, said that it was recognised by all that the practitioners of dentistry were actuated by the highest and best of all motives and he rejoiced to observe how highly their skill and knowledge were appreciated. In regard to the history of dentistry Mr. Tweedy had something to say on the authority of Herodotus who wrote in the fifth century before Christ. Herodotus said that in ancient Egypt medicine was practised on a system of separation—that is to say, a physician treated one disease and no more. Amongst these specialists were those who treated diseases of the teeth. Recent researches in the rich archæology of Egypt were considered to have confirmed the statement of Herodotus in this matter as in others. It has been said that mummies had been found whose teeth had been stopped with gold. That had been a cherished belief of Mr. Tweedy for many years but when he came to that dinner he was informed by Mr. C. S. Tomes, who he was sorry to say had become imbued with the iconoclastic and critical spirit of the age, that after inquiring into the evidence in regard to the existence of teeth of mummies which had been stopped with gold he found it rested on no better testimony than that of a dealer in mummies who had a skull to sell with teeth treated in the manner described. Mr. Tweedy said that in spite of Mr. Tomes he was going to believe in Herodotus and whether teeth were stopped with gold in the days of Herodotus or not it was certain that from the fifth century before Christ to recent times there had been little progress in dentistry. Embryology, histology, and chemistry had all increased the power of the dentist when dealing with diseases of the teeth, not merely when disease had occurred, but also in the prevention of such affections. Among the other speakers were the Dean of the College, Mr. P. Sidney Spokes, Mr. Tomes, F.R.S., Mr. G. H. New, Mr. G. W. Geekie, Mr. K. W. Goadby, Mr. A. S. Underwood, and Mr. W. Rushton.

BRITISH MEDICAL ASSOCIATION: THE FORTHCOMING MEETING AT OXFORD.

CONSIDERABLE interest has already been awakened in the University of Oxford with regard to the approaching meeting of the British Medical Association which is to be held in Oxford in July, 1904. Preparations are actively progressing in all the sections and as regards the section of pathology special steps are being taken to insure the success of the meeting. It is hoped also to make the museum of this section of interest to all the sections and as it will be arranged in the dissecting room of the department of human anatomy in the University museum it will be easily accessible and will be in contiguity to the meeting places of the sections. The local committee has drawn up a letter, a copy of which will, it is hoped, shortly be in the hands of every member of the Association, but in case it should fail to reach anybody we are requested to give its main contents in our columns. The museum will be arranged under the following headings:—

1. Specimens and photographs illustrating the latest advances in Medicine, Surgery, and Pathology.
2. Instruments for X-ray Work and Skiagraphs.
3. Colour Photography as applied to Medical, Surgical, and Pathological Work.
4. Micro-photographs and instruments for Micro-photography.
5. Instruments for Clinical Diagnosis.
6. Surgical Anatomy.

Provision will also be made for specimens bearing on any of the discussions in the various sections.

The local committee desires the coöperation of members of the association and will be glad to hear if any member is desirous of contributing to the museum. The committee will be glad to hear if there is any subject not mentioned above in which members are specially interested. It is anxious to arrange demonstrations of apparatus and specimens during the meeting. Other information may be had from the secretary of the local committee, Dr. E. W. Ainley Walker, University College, Oxford.

THE METROPOLITAN ASYLUMS BOARD AND SANATORIUMS FOR CONSUMPTIVES.

IN THE LANCET of NOV. 21st we noticed in a leading article the question of the establishment of sanatoriums by the Metropolitan Asylums Board for the treatment of consumptive persons. The matter was again discussed at a meeting of the Board on Nov. 28th, being brought up in the form of a report from the General Purposes Committee with reference to the resolutions passed by the metropolitan branch of the Incorporated Society of Medical Officers of Health in favour of the establishment by the Board of sanatoriums for consumptives.[1] A communication was also read from the Local Government Board inclosing a copy of a letter on the same subject which that department had received from the Poplar board of guardians in which the Local Government Board sought for the observations of the managers of the Metropolitan Asylums Board. The committee stated that it had given careful consideration to the whole question and to the representations made in the

[1] THE LANCET, Nov. 21st, 1903, p. 1444.

several communications which had been addressed to it on the subject from time to time during the past two years and it had come to the conclusion that the question of the establishment of sanatoriums for consumptive patients was one which called for an authoritative expression of opinion on the part of the Local Government Board. It accordingly recommended:—

That the managers, having duly considered the question of the proposed establishment of sanatoria for consumptive patients and the letters received from the Local Government Board and the various metropolitan local authorities and medical officers of health in regard thereto, are of opinion that the matter is one of such vital and far-reaching importance to the community at large and one which, if adopted by the managers, would entail so considerable an extension of their duties and responsibilities and so large an increase in their expenditure as to call for some authoritative expression of opinion by the chief health authority of the country—viz., the Local Government Board—before the managers are asked to take any definite action in the matter or to make any further inquiries in regard thereto; and that the Local Government Board, the several boards of guardians, the borough councils, and the medical officers of health be so informed.

The report and recommendations of the committee were adopted by the Metropolitan Asylums Board which now awaits, as we think very properly, the lead of the Government department which has charge of the health of the country.

HERTER LECTURES.

FOR a number of years Dr. C. A. Herter has given a course of lectures on pathological chemistry in the University and Bellevue Hospital Medical College, New York. On retirement from his work there, on receiving the appointment of professor of pharmacology at the Columbia University, he was desirous of perpetuating the course in his old college. To this end he has endowed a lectureship which, we understand, is to be offered annually to others who have made their names in this department of science. Professor W. D. Halliburton, of King's College, London, has been selected to give the lectures in the coming year and he has chosen as his subject the Bio-chemistry of Muscle and Nerve. The lectures will commence on Jan. 4th, 1904.

A TESTIMONIAL, consisting of an illuminated address and a silver plate embossed with the arms of the Swiss cantons, was presented to Professor Arthur Gamgee on Nov. 23rd as a token of gratification on the part of his many friends, including his British colleagues in Montreux, on the occasion of his recently receiving the degree of LL.D. from the University of Edinburgh. In the few appropriate words with which Professor Gamgee expressed his gratification at so warm an expression of kindly feeling he took occasion to remark on the good feeling which prevailed generally among members of the British medical profession, in which respect they compared favourably with their foreign colleagues.

AT a recent meeting of the subscribers to the proposed testimonial to Dr. T. Henry Green on the occasion of his promotion to the position of consulting physician to Charing Cross Hospital it was decided that it should take the form of a prize in clinical medicine. The contributions have already reached a handsome sum and the list will presently be closed, but those of Dr. Green's old pupils and other friends who may not have had an opportunity of contributing may still do so by communicating with Dr. C. J. Woollett, Ambleside, Streatham, London, S.W., the honorary treasurer of the fund.

AT the usual annual meeting of the Royal Society held on Nov. 30th (St. Andrew's Day) Sir Archibald Geikie was chosen as successor to Sir Michael Foster as joint secretary of the society. An influentially signed letter supporting the apointment of Professor W. D. Halliburton was published but Sir Archibald Geikie, the official candidate, was successful by a large majority. Professor Halliburton and Professor Rose Bradford were elected members of the council of the society.

A DEMONSTRATION has been arranged on Saturday, Dec. 5th, at 11 A.M. at the South-Western Polytechnic, Manresa-road, Chelsea, to illustrate the various systems of physical exercises at present in use in schools. Lessons of a quarter of an hour's duration will be given in the German system, Ling's Swedish system, English military drill, musical drill, and the model course. All who are interested in physical education are invited to attend.

THE medical officer of health of Cape Colony states that for the week ending Nov. 7th no case of bubonic plague was discovered throughout the colony. Plague-infected rats were found at Port Elizabeth, Knysna, and at Queenstown. As regards the Mauritius a telegram from the Acting Governor, received at the Colonial Office on Nov. 27th, states that for the week ending Nov. 26th there were 77 cases of plague and 41 deaths from the disease.

Dr. Louis Sambon, lecturer at the London School of Tropical Medicine, will read a paper on Sleeping Sickness before the Epidemiological Society of London on Friday, Dec. 11th, at 11, Chandos-street, Cavendish-square, W., at 8.30 P.M. Dr. Sambon is now in Paris studying the cases of sleeping sickness which have recently been brought over from Uganda and it is hoped that a good discussion will follow the reading of the paper.

THE committee of the Macedonian Relief Fund has received an anonymous offer to subscribe the sum of £1000 conditionally upon the total amount subscribed direct to the fund by Jan. 1st, 1904, reaching £20,000. Recent cables published by the Macedonian Relief Fund describe terrible distress in the regions south of Monastir.

THE annual dinner of the Otological Society of the United Kingdom will be held at the Trocadéro Restaurant, Piccadilly, London, W., on Monday next, Dec. 7th, at 7.30 P.M. The chair will be taken by the President of the society, Dr. Urban Pritchard, and a good attendance is anticipated.

MEMBERS of the medical profession should know that copies of the recent digest of the criticisms on the British Pharmacopœia, 1898, may be obtained from the publishers of the General Medical Council, Messrs. Spottiswoode and Co., 54, Gracechurch-street, London, E.C., price 1*s.*, or post free 1*s.* 1*d.*

IT is proposed to form a Masonic Lodge in connexion with the University of Durham, which will hold its meetings in London, and those who are interested in the project are requested to communicate with Dr. Frederick Spicer, 17, Wimpole-street, London, W., as soon as possible.

Sir Patrick Manson is announced to deliver an address at the London School of Tropical Medicine at 3 P.M. on Monday next, Dec. 7th. The address will form a *résumé* of the past and present work of the school, with indications of what it is hoped the school will do in the future.

THE annual dinner of the Royal Free Hospital and London School of Medicine for Women will be held at the Hotel Cecil, Strand, London, W.C., on Tuesday, Dec. 15th, at 7.15 P.M.

THE King has appointed Dr. George Turner, medical officer of health, to be a Member of the Legislative Council of the Colony of the Transvaal.

Sir Hermann Weber delivered an interesting lecture on Thursday last at the Royal College of Physicians of London on the Prolongation of Life.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, NOV. 26TH.

THE third meeting of the session took place to-day, when Sir WILLIAM TURNER, K.C.B., again presided.

Dental Business.

The Executive Committee presented the following report on the dental business transacted since the last session of the Council, viz :—

(1) The prescribed conditions having been duly fulfilled in each case, the names of the undermentioned persons have been restored to the Dentists Register from which they had been erased in conformity with the provisions of Section 12 of the Dentists Act, 1878: John J. Atwood, Alfred T. Broadlick, Joe E. Brook, David Cormack, George G. Forster, Albert E. Mallan, Leonard Mathison, Albert Miles, Arthur H. Smith, Irwin B. Street, Henry W. Watson, Frederick Wells, Charles W. Whiteley.

(2) The Committee received from the Foreign Office, through the Colonial Office, and entered on its minutes, information in regard to the position of qualified British dentists in the German Empire.

(3) The Committee considered an application from an unregistered dentist for the reconsideration of his application for registration as a dentist under Section 37 of the Dentists Act, which raises a point of law in regard to certain apprentices, and resolved: "That the application with accompanying documents be referred to the General Council for its consideration."

(4) An application from another unregistered dentist was also considered and it was resolved: "That the Executive Committee do not recommend the Council to accede to Mr. Spero's application."

(5) The Committee received from the Privy Council Office copies of Royal decrees republishing sanitary laws in force in the Netherlands, which were entered on its minutes and which show, *inter alia*, the position of British dentists in the Netherlands.

On the motion of Dr. MACALISTER, seconded by Mr. BRYANT, the report was received and entered in the minutes.

The Council then dealt with the case referred to it by the Executive Committee—namely, the application from Mr. I. E. Bush of Melksham, Wilts, for the reconsideration of his application for registration as a dentist under Section 37 of the Dentists Act, 1878. This section deals with the case of dentists in practice prior to the passing of the Act and apprentices.

Mr. TOMES explained in detail the action of the Council in administering the section and the effect of the judgment of Mr. Justice Hawkins and Mr. Justice Wright in the Spero case. In the case of apprentices it was decided that the period of grace expired on August 1st, 1879, while the apprenticeship of Mr. Bush expired three weeks later than that date. The man to whom he was apprenticed did not register, but in a statutory declaration he described himself as a "pharmacist and dental practitioner" and said that he gave to Mr. Bush as efficient an education in dental practice as he then knew. Mr. Bush had practised as a chemist for all the period of the Dentists Act and so lately as 1889 he passed the minor examination of the Pharmaceutical Society and became registered as a chemist and druggist. In 1896 the Executive Committee recommended Mr. Bush for registration but the Council did not approve the recommendation.

The PRESIDENT: Have you any motion to move?

Mr. TOMES: I move that the application be not acceded to.

Dr. MACALISTER: I second it.

This motion was put from the chair and at once agreed to.

The Case of Mr. Allan Douglas Cameron.

The Council proceeded to the consideration of the case of Allan Douglas Cameron, registered as of Durban, Natal, with the triple qualification of Scotland, 1899, who had been summoned to appear before the Council to answer the following charge, as formulated by the Council's solicitor :—

That you abused your position as a medical man by committing adultery with a patient—namely, Mrs. Tothill, a married woman whom you had been attending professionally, of which adultery you were found guilty by the decree of the Probate, Divorce, and Admiralty Division (Divorce) of the High Court of Justice, dated July 28th, 1903, in the case of Tothill *v.* Tothill and Cameron, in which you were the co-respondent.

The complainant was Mr. Charles Tothill.

Mr. Cameron did not attend, the PRESIDENT saying that he had been informed that he was at present in India.

Mr. LEWIS E. FAWCUS, solicitor, appeared on behalf of the complainant. He read a statutory declaration made by his client, stating among other things that Mr. Cameron attended his wife in Durban and also in this country and expressing his opinion that the case was a flagrant one of breach of professional confidence. Mr. Fawcus handed in a transcript of the shorthand notes of the proceedings in the Divorce Court.

Mr. JOHN TOTHILL, a brother of the complainant, gave evidence to the effect that Mr. Cameron was introduced to the family as the medical attendant of Mrs. Tothill.

The Council deliberated in private for a time and thereafter the PRESIDENT announced that the Council had judged Mr. Cameron to have been guilty of infamous conduct in a professional respect and had directed the Registrar to erase his name from the Medical Register.

The Case of Mr. Robert Fawcitt Granger.

The Council next proceeded with the case of Robert Fawcitt Granger, registered as of 85, Church-street, Whitby, with the triple qualification of Scotland, 1889, who had been summoned to appear in consequence of his conviction at Plymouth, on Sept. 16th last, of the offence of unlawfully and wilfully neglecting his three children.

Mr. WINTERBOTHAM, the Council's solicitor, explained that the trial lasted two days and it was shown that the offence had resulted from intemperance on the part of the parents and both Mr. Granger and his wife were sent to prison for two months each, the children meanwhile to remain in the workhouse.

Mr. GRANGER, at the request of the President, read a letter sent by him on Nov. 17th to the Council's solicitor. In this he declared that the statements which had been made by witnesses at the trial had been animated by strong feelings of dislike against him and his wife. The case had been greatly exaggerated. He had no means with which to procure drink and if there was a little neglect of the children, one of whom was unmanageable, it arose from thoughtlessness, not wilfulness. He trusted that the Council would take a lenient view of the case as it would be a serious matter for his wife and family if it did not.

In answer to questions Mr. GRANGER said that the district in which he lived was a very poor one and the children would play in the streets. They might thus now and again get dirty, but he did his best to keep the boys clean and his wife and he robbed themselves to give them food. He had been in Plymouth since August a year ago, but there was very little to be earned. In five weeks he had only made 1*s*. He was trying to do his best until most of his furniture was taken away under distraint. It was true that silk dresses had been seen in a bedroom, but his wife had got these five years ago or more; she had got none during the last three or four years and her jewellery and his and some of his books had to be sold to get food and to keep a home together. He had not tasted spirits this year and only had a glass or two of beer a day. He had been in practice at Whitby, Yorkshire, before going to Plymouth. He had left Whitby because of family troubles.

Mr. GEORGE FREDERICK WATTS, an officer of the Royal Society for the Prevention of Cruelty to Children, gave evidence that the statements on which that society prosecuted the Grangers were true. The report was that they drank but he did not see them drink.

Dr. MCVAIL wished to know what was the cause of the great decline in the social status of the Grangers in three or four years and was there any reasonable ground for believing that that cause was not likely to arise again?

The PRESIDENT: If Mr. Granger were to tell us that he has become a total abstainer.

Mr. GRANGER: I admit a glass or two of beer a day but I have not tasted spirits this year. If I can do without spirits I can do without malt liquor. If the beer is to be a drawback I will give it up as well.

After the Council had deliberated in private

The PRESIDENT announced the decision. Addressing Mr. Granger he said: The Council has had to summon you in connexion with a conviction and I think you know perfectly well what it is that led to your being convicted—that your habits were such as had reduced you to this state of absolute impecuniosity that has been described to us in the evidence. The Council has very carefully considered your case and they are willing to give you an opportunity to redeem yourself. Now, in order to do that I should say, speaking to you as an individual, that there is only one course open to you and that is to cease to take alcoholic drink of all kinds. Well, the

Council has resolved to give you an opportunity of redeeming yourself and you will have to appear here when the Council meets in May next and will have to produce satisfactory evidence in the way of certificates from persons upon whose word we can rely that you have ceased the bad habits you have been indulging in, and the Council will be prepared to say whether they will allow you to have your name retained on the Medical Register. We give you six months' probation.

In answer to Mr. GRANGER

The PRESIDENT said that of course in the interval he could go on practising.

Mr. GRANGER: Thank you.

The Case of Mr. David Barnett Bradlaw.

This was a case of consideration of the facts proved against David Barnett Bradlaw registered as of 4, Harrington-street, Dublin, Lic., Lic. Midwif. 1899, R. Coll. Phys. Irel., Lic., Lic. Midwif. 1899, R. Coll. Surg. Irel. Mr. Bradlaw was summoned to appear before the Council in May last to answer a charge formulated by the Council's solicitor as follows:—

That you, being a registered medical practitioner, have associated yourself in dental practice with your brother, Henry Jacob Bradlaw, a dental practitioner registered as residing at No. 4, Harrington-street, Dublin, and have carried on a dental practice at No. 146, Inverness-terrace, Bayswater, W., in your said brother's name and have personated him; and further, that the dental practice carried on at No. 146, Inverness-terrace as aforesaid is extensively advertised by pamphlets and in newspapers and otherwise.

At the close of the hearing of this charge the Council found it proved but adjourned further consideration for six months in order to give Mr. Bradlaw the opportunity of remodelling his business conduct to its satisfaction.

On the case being called to-day Mr. D. Barnett Bradlaw appeared for himself and Mr. R. W. Turner, instructed by Messrs. Bowman and Curtis-Hayward, solicitors, for the British Dental Association.

Mr. BRADLAW, in answer to the President, said that he had written to the Council's solicitor. The letter stated that his brother (Mr. H. J. Bradlaw) had ceased to practise at the address in Inverness-terrace and that he (Mr. D. B. Bradlaw) had conducted his practice in accordance with the best traditions of the profession. He had nothing to add to that.

Mr. TURNER said that there was every reason to believe that since May last Mr. Bradlaw had conducted his practice in a proper manner and that the issue of the objectionable advertisements in connexion with the Inverness-terrace address had ceased.

The PRESIDENT, after the Council had deliberated in private, addressing Mr. Bradlaw said: The Council having given a further consideration to the facts proved against you do not judge you guilty of infamous conduct in a professional respect.

Mr. BRADLAW: Thank you.

The Case of Mr. Louis Edward Delmege.

The next case dealt with was that of Louis Elward Delmege, registered as of Fern Bank, Burton, Westmoreland, Lic. R. Coll. Surg. Irel. 1877, Lic. R. Coll. Phys. Edin. 1879, who had been summoned to appear before the Council in consequence of his conviction before an interim sheriff-substitute of Lanarkshire at Glasgow on Sept. 30th last of the offence of desertion of his wife and child, for which he was sentenced to imprisonment for 40 days.

Mr. Delmege appeared with his solicitor, Mr. F. J. Shaw.

Mr. SHAW explained that Mr. Delmege had married a Creole lady in Jamaica but the marital life had turned out unsuccessful and he had not only had to give up his practice in the island in question but had lost upwards of £2000. After a visit to the West Coast of Africa he came to England but in March last the state of things came to be such that a separation was agreed to, Mr. Delmege consenting to allow his wife £10 a month. She left their house but he had to go abroad. On his arrival at Madeira he communicated with his wife but finding that there was not much prospect of work at Madeira he returned to England. Meanwhile, negotiations for completion of the deed of separation were going on but his wife went to Glasgow, where she had friends, and "threw herself and child on the parish." Mr. Delmege was arrested in London on Sept. 19th. At his trial he was unassisted. He had been advised to be represented by a legal practitioner, but he thought that with the correspondence in connexion with the separation the case was a safe one for him. He (Mr. Shaw) was told there was good reason to think that the conviction was faulty and that it could be quashed but that could be brought about only at an expense of about £250 which Mr. Delmege was reluctant to incur.

Mr. P. CARROLL, clerk to Mr. Shaw, gave evidence showing that Mrs. Delmege had agreed to everything proposed and all was done except the revision of the deed. She had consented to the withdrawal of all accusations made by her against her husband. Mr. Delmege had no knowledge of the warrant and he was arrested in Guildford-street, London, by two Scotch detectives and taken to Scotland by them. Witness could not tell how it was the warrant could be operative out of Scotland but it was used in London and the police paid the expense of conveying Mr. Delmege to Glasgow.

Sir JOHN BATTY TUKE said that it was the most extraordinary thing he had heard of if the Scotch police took the trouble and expense of sending two detectives from Glasgow to London without having the warrant backed by an English magistrate.

The PRESIDENT: I do not think that a warrant issued in London would have run in Glasgow.

After a brief deliberation of the Council in private,

The PRESIDENT said: Mr. Delmege, after hearing your case the Council has decided not to erase your name from the Medical Register.

The Council concluded the day's sitting *in camerâ*.

FRIDAY, NOV. 27TH.

The Council met again to-day, Sir WILLIAM TURNER presiding.

Primary Examinations: Special Committee Appointed.

Mr. BRYANT, chairman of the Examination Committee, presented to the Council three reports on the inspection of the primary examinations—one with reference to the Scottish Conjoint Board, another with reference to the Irish Conjoint Board, and the third "on the whole series of inspections of primary examinations." Each of the reports was formally received and ordered to be entered in the minutes.

REPORT BY THE EXAMINATION COMMITTEE UPON THE REPORT BY THE VISITORS OF THE PRIMARY EXAMINATIONS IN CHEMISTRY, PHYSICS, AND BIOLOGY OF THE CONJOINT EXAMINING BOARD IN SCOTLAND OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, KNOWN AS THE TRIPLE BOARD OF SCOTLAND, MARCH 23RD AND 24TH, 1903.

21 candidates presented themselves for this examination, which was held in Edinburgh, and the visitors report that the general arrangements for the conduct of the examination were excellent.

In each of the three subjects there was a separate paper and an oral examination. Three hours were allowed for the written answers of the paper or papers and this time was the same for all who presented themselves, whether they had one, two, or three papers to answer.

Candidates may present themselves for one or two only of the three subjects without offering others or another—this method being called the "divisional"—and different rules as to marking apply to these three classes.

Two examiners attended for each subject and the papers were divided between them. If the examiner who read any paper considered it to be worth 40 per cent. or more, the other examiner did not read it. But if a lower percentage was awarded by the reader of the paper then his brother examiner had also to read it and a joint mark was agreed upon.

In the oral examinations 15 minutes at least were allowed to each candidate in each subject, and in their report the visitors express their sense of the care and patience exercised by the examiners in carrying out their duties.

The paper in elementary biology consisted of four questions and three at least of these had to be answered. The questions were well designed, in the opinion of the visitors, to ascertain the knowledge of general principles possessed by the candidates. The marking was certainly rather high in this as in the other written parts of the examination. The standard, in the opinion of the visitors, was not a high one, but they, considering that the paper is the least important part of the examination, are of opinion that the standard can well be defended. The paper is only a part, and the easiest part, of the examination. If a candidate makes no more than 20 per cent. in this part he must make 80 per cent. at the least in the oral in order to secure a pass.

The oral examination in biology was lavishly supplied with specimens of all kinds. It was of a searching character and taken in conjunction with the paper was, in the opinion of the visitors, "a satisfactory examination." The visitors "regard the paper as a valuable element in the examination. The oral is the more important portion and it is made clear that this is so." The candidate who only acquits himself moderately in the written part of the examination has to show a very considerable amount of knowledge at the oral if he is to regain the ground which he has lost.

The examination in physics is distinct from the examination in chemistry; it is conducted by different examiners with a separate paper. The value accorded to it is equal to the value assigned to the chemistry examination. The synopsis is ample and the details are well selected.

In the paper were four questions; three only were to be answered,

of which the question on magnetism was one. The paper was considered by the visitors to be an easy one.

The oral examination lasted 15 minutes for each candidate and a variety of apparatus was on the table for use, out of which each candidate was shown a selection of three or four pieces. In each case he was asked what it was and how it acted. He was required to fit one part to another and to explain its working and to show how it was used and for what purposes it was practically employed and generally to explain the principles which underlie its action.

"The cross-examination brought out very clearly whether the candidate had an effective knowledge or whether he had merely a memory knowledge of book work."

The marking was efficient without being too severe.

The examination in chemistry consisted of a paper and an oral examination which lasted from 15 to 20 minutes, with a short practical examination occupying from five to ten minutes.

The synopsis was considered by the visitors to be sufficient for systematic or theoretical chemistry and to have been well drafted; but they report that the synopsis of "the practical portion," which "consists of a single sentence," "does not indicate to the student the necessity of becoming acquainted with the way to perform any chemical operations or experimental work. This portion of the syllabus is totally inadequate."

The chemistry paper consisted of four questions, of which three were to be answered; the questions were considered by the visitors to be easy. The marking was fair in the higher numbers and very lenient in the lower numbers.

The oral examination was searching and an abundant supply and variety of chemical substances were placed on the table. Each candidate was shown three or four specimens in succession and he was asked to say on their inspection what each was, what its formula was, how it was prepared, and what were its properties. Indeed, a kind of cross-examination was made and so conducted as to show whether the candidate had an effective and intelligent knowledge of the subject. This part of the examination is said by the visitors to have been admirably conducted.

The practical examination, which lasted about six or seven minutes, followed, "and, since the function of examinations is to secure efficient teaching and to ascertain whether the candidate has profited by the teaching," the visitors' decided opinion is "that the practical examination fails to perform this function and that the candidates were in many cases neither trained to understand experimental methods and chemical manipulations, nor to perform any chemical work which would be useful to them in after life or as an introduction to the study of physiological chemistry."

The visitors give a complete account of the examination of a single student to make the method of examination clear. It is interesting reading.

The committee of management of the Scotch triple qualification, in their reply to the visitors' report, recognise gladly the favourable opinion given upon the conduct of the examination by the visitors and that the examination was carried out to their satisfaction except in the department of practical chemistry. As regards that department the committee of management admit that it is not what they would desire. They recognise the fairness of the remarks made by the visitors and will give what effect they can to them.

The conclusions arrived at by the visitors are set forth in the following:—

"SUMMARY.

"1. The examination in systematic chemistry, like that in physics and biology, was carried out in an efficient, fair, and painstaking manner.

2. The oral examination, to which all candidates were subjected, was admirably carried out and is a most valuable feature of the examination.

3. The standard of the theoretical examination is a low one, but the percentage of marks in the oral examination is high for a pass and is a very satisfactory test of the candidates' knowledge.

4. The practical examination in chemistry is hardly worth the name, and even if it amounted to much more than it does it is of a kind that is of extremely little value, either as a training for the student's intellectual powers or as a preliminary to the study of physiology, or as giving him something that will be useful to him in his future career."

These conclusions this Examination Committee now endorse and the committee regard the examination in practical chemistry as insufficient.

REPORT BY THE EXAMINATION COMMITTEE ON THE REPORT BY THE VISITORS OF THE EXAMINATIONS IN CHEMISTRY, PHYSICS, AND BIOLOGY OF THE CONJOINT EXAMINING BOARD IN IRELAND.

"Candidates are admitted to this examination who have studied at any recognised school of medicine and also if they have pursued their studies at any of the schools or other institutions recognised by the English Conjoint Board, whether such schools or other institutions have been approved by the General Medical Council or not."

The general arrangements for the conduct of the examination were by the visitors pronounced to have been excellent.

In each of the three subjects of biology, chemistry, and physics there was a paper, for the answering of which one hour and a half was allowed and an oral examination of 15 minutes; in chemistry there was also a practical examination.

A member of the committee of management attended each examination as a visitor, whose duty it was to report to the committee. Every candidate came under the notice of both examiners in each part of the examination.

"A 'cipher' agreed to by both examiners in any part—written, oral, or practical—of a subject involved rejection. Candidates who pass in all subjects at any examination and obtain 70 per cent. of the total marks are deemed to have passed with honours and receive a certificate to that effect on completing their final examination," a pass mark being 50 per cent.

At this examination nine out of the 76 candidates passed with honours.

"There was no meeting of examiners for the final adjustment of marks. Each pair of examiners having decided upon the marks to be given in their subject sent them to the secretary, who entered them on a list which was examined and signed by the visitor of the examination, before it was made public. It will be noticed," add our visitors, "that the absence of any examiners' meeting prevents the possibility of a candidate's marks being raised in one part of a division in order to enable him to pass and because he has done well in the other part."

The visitors endorse this plan of finally dealing with the marks.

ELEMENTARY BIOLOGY.

The syllabus was pronounced by our visitors to be a satisfactory one; they note that the physiological rather than the morphological aspect of biology was insisted upon. The visitors were "very much impressed with the amount of useful elementary knowledge of physiology possessed by quite a number of candidates."

The paper consisted of five questions, all of which were expected to be answered. Our visitors were satisfied with the questions and regarded the standard as satisfactory.

The oral examination was pronounced by our visitors to be of good character and in their opinion a very fair standard was exacted. There was a sufficient supply of specimens, many being fresh, to serve as pegs upon which physiological questions could be asked.

The examination as a whole was of a highly physiological character and to prove this the visitors append full notes of a single examination.

EXAMINATION IN PHYSICS.

This examination, like that at Edinburgh, is distinct from the examination in chemistry and is conducted by different examiners by means of a separate paper, and also an oral examination.

Our visitors pronounce the syllabus to be excellent and regard "a good detailed syllabus as necessary in this subject, because it is wide and complex, while only a comparatively small selection is needed by, and possible to, a medical student."

The paper consisted of five questions, all of which had to be attempted; it was an easy one and the knowledge displayed by the candidates who passed was satisfactory.

The oral examination lasted 15 minutes. A variety of apparatus was placed on the table and each candidate was examined upon a selection of these and asked to explain their construction and use. He was questioned about some of the mechanical and physical laws in such a way as to ascertain how far he understood the application of these laws to practical matters.

The questions given were practical and the marking was strict.

EXAMINATION IN CHEMISTRY.

This examination consisted of a paper of five questions, an oral examination of 15 minutes, and a practical examination for which three hours were allowed.

The syllabus is described as being of the usual description, although it failed to include certain elements which our visitors hold that a medical man cannot afford to neglect.

Our visitors doubt whether a detailed syllabus is so good "as a simple statement that a candidate is required to be acquainted with the 'elements of chemistry, including typical examples of the principal classes of carbon compounds.' The detailed syllabus certainly facilitates cramming and encourages neglect of everything, however important, which does not happen to be named in it."

The paper of five questions, all of which had to be attempted and were well chosen, was an easy one. The knowledge of the candidates who obtained half marks was satisfactory but several of the weak papers were too highly marked.

The oral examination lasted 15 minutes. The questions were well selected but no specimens were provided to be identified on inspection by the candidate. Our visitors "think it would be an improvement if typical chemical substances were brought in and made use of as pegs on which to hang questions in this part of the examination."

THE PRACTICAL EXAMINATION.

This examination, our visitors report, was of the old-fashioned test-tubing kind, but it was well conducted and good.

Our visitors hold, however, "that it is of very little service either in securing good training in practical chemistry or in ascertaining whether a medical student can perform experiments and draw conclusions from them."

During the three hours allowed three substances had to be examined and identified. Some of the candidates did their work well. The knowledge of others was empirical and therefore useless. "The examination compared very favourably with the absence of any substantial practical examination at the Edinburgh Board, but unfavourably with the examination at the London Conjoint Board."

Our visitors suggest "that teaching and examination alike would be improved without loss of time or hardship to anyone if for two-thirds of the examination there were substituted a mixture of two oxides or salts and the candidates were required to separate and identify the two metals or their oxides and prepare and show to the examiners a specimen of a characteristic compound of one of them."

The committee of management of the body inspected venture to doubt "whether a knowledge of the methods of detecting or recognising the salts or other bodies used in medicine is less valuable to the student than those of separating two metals or two oxides."

The following conclusions are given by way of summary to their report by our visitors upon the examinations in biology, physics, and chemistry.

SUMMARY AS TO BIOLOGY.

By way of summary to this part of the examination our visitors report that they "should much like to see a short practical test added to the examination in biology," to which the committee representing the body visited answer "that the absence of the practical examination at this stage of the student's course is more than compensated for by the practical examinations in dissecting and histology at the end of the second year."

SUMMARY AS TO PHYSICS AND CHEMISTRY.

1. The examination in physics was carried out in an efficient, fair, and painstaking manner and the arrangements were excellent.

2. The examination in theoretical chemistry was also carried out in an efficient, fair, and painstaking manner.

3. In both the oral examination was a valuable feature, while the written papers received full consideration in the ultimate decision.

4. The standard of the theoretical examination was a low one, but the marking was strict *except in the poorer papers;* and as a general rule the percentage of marks in the oral examination was high for a pass and was a satisfactory test of the candidate's knowledge. In

the written papers all the questions had to be attempted and the examiner knew at a glance where the candidate's knowledge fell short.

5. The practical examination was very good of its kind, but it was a kind that is of little value, either as a training or as a preliminary to the study of physiology and it injuriously affects the kind of education which candidates receive.

6. The average work of the candidates betrayed a somewhat superficial attention to their subjects, but in several instances the performance was of a high order, showing good training and ability to profit by that training.

In conclusion, the Examination Committee are of opinion that this examination is sufficient.

REPORT BY THE EXAMINATION COMMITTEE ON THE WHOLE SERIES.

The final report of the visitors upon the conclusion of their visitation of the first medical examinations of the Conjoint Boards of England, Scotland, and Ireland, with the Apothecaries' Society of London, consists of a comparison of the examinations they have visited and their personal opinions as to the place in medical education which the three sciences of elementary biology, physics, and chemistry should take; and it is to be regretted that the report was not in the hands of the members of the Medical Council before the discussion upon the merits of the examinations of two of the four different bodies had taken place.

The visitors drew attention to the fact which should not be overlooked: "that the three sciences in question cover a vast field of knowledge and that the time which students can give to them is extremely limited." [At page 19 of their report they assure us that "they have made no attempt to indicate that one examination is better than another as a whole," and "that they have recognised in each some merit peculiar to itself and have pointed out in each some defect."]

BIOLOGICAL EXAMINATION.

They point out that at the English and Irish Conjoint Boards and the Apothecaries' Society biology may be passed as a separate subject, but the other two subjects must be passed at the same time.

"At the Scotch examination any one of the three subjects may be passed separately, but the student who elects to pass his examination in this manner must secure a higher percentage in each subject than one who is taking all at the same time."

The visitors are of opinion that biology is a subject which may be divided off from the others and passed separately.

The visitors point out that at the two London examinations there is no paper in biology, the examination being exclusively oral. At the Scotch and Irish examinations papers are given as well as an oral test. No practical test is applied at any of the four examinations visited, and "in an essentially practical subject (as biology), a practical test should be applied if the preparation for the examination is to be real and useful."

The practical test, which requires practice before proficiency is reached, is a guarantee against cram, for such "cannot teach a student how to stain and mount a microscopic specimen or to dissect out a given structure in a frog or rabbit."

The visitors regard the omission of a paper as a grave one, "since by virtue of the double requirement of paper and oral, it is possible to cover a larger amount of ground than can be covered where only an oral is resorted to."

The written test, the visitors point out, "requires a student to have acquired some idea of how to marshal his facts and write down his knowledge in such a manner as to make it intelligible to another person. He must learn to do this at some stage in his career."

With respect to the place of biology in a medical curriculum the visitors write: "If we were pressed for an opinion on this point we should be obliged to admit that, overburdened as the student's curriculum is with subjects, elementary biology is the subject which could best be dispensed with" and that much, perhaps all, that is valuable in it might be imparted in the anatomical and physiological courses, if those subjects were dealt with on somewhat broad lines in a student's second year.

Should this plan not be followed, the system adopted by the Irish Board is one of which the visitors speak much in favour. According to the practice of that Board, if not according to its printed regulations, the examination is one mainly concerned with the principles of elementary physiology, the course of instruction being utilised as a preparation in facts and methods for the later course in physiology.

EXAMINATION IN PHYSICS.

The visitors divide the examinations in physics and chemistry into two groups, according as the subject of physics has a separate paper or not. At the English Conjoint Board there is no separate paper in physics, although two questions upon the subject, one of which must be answered, are given in the conjoint paper on physics and chemistry.

The requirements of the Apothecaries' Society are similar, with the addition of an oral examination in physics as part of the chemistry examination.

At the Scotch and Irish examinations there was a separate paper on physics by distinct examiners, and an oral examination, at which candidates were examined on their knowledge of some of the instruments placed on the table.

The visitors regarded the two English examinations as being quite inadequate to secure such training in physics as would be of use to a medical student, but were satisfied with the Scotch and Irish.

The visitors conclude the consideration of the examination in physics at the four bodies by the following suggestions: "That the requirements of the English Board should be raised to the level of the Scotch and Irish by setting a separate paper, and that this paper should consist of four or five questions of which at least three ought to be required as a minimum for a pass; and further, that a candidate ought to be passed or rejected in physics independently without taking into consideration his performance in chemistry or any other subject."

The visitors condemn "the plan of permitting the principle of compensation to come in where chemistry and physics must be passed at the same examination. If a candidate is unable to reach the very moderate standard required for a pass in one subject he ought not to get through his examination because he has shown a little more knowledge than the bare minimum in another."

EXAMINATIONS IN CHEMISTRY.

The paragraphs on the subjects of the examinations in chemistry require careful reading, for the visitors record that "they comprise the ordinary elements of chemistry, together with a small selection of carbon compounds under the head of 'organic chemistry'"; also that "at none of the examinations visited were the regulations such as to secure a slight knowledge of organic chemistry and in view of the great and growing importance in medicine of an acquaintance with the carbon compounds, this is a serious defect." They suggest, as "the papers set do generally separate the 'organic' questions under a separate heading, that under this heading not less than four questions should be set, of which not less than two or three must be answered for a pass, the end would be secured as well as can reasonably be demanded in an elementary examination."

The visitors report that the synopses at the different examinations have a great general resemblance to each other, differing only in details, and that a detailed syllabus in the elements of chemistry is unnecessary.

On the other hand, a synopsis of the carbon compounds is unavoidable and the visitors kindly provide a new synopsis as follows:—

"SYNOPSIS INDICATING THE RANGE OF SUBJECTS OF EXAMINATION IN CHEMISTRY.

"The elements of chemistry, its principles and laws, as illustrated by the properties and reactions of the more common non-metallic and metallic elements and their principal compounds. Symbolic notation and equations. Calculations. The commoner chemical processes. Examples of synthesis, analysis and metallurgical processes; manipulation of gases. Classification of carbon compounds; the composition, properties, and relations of examples of each of the principal classes. Cyanogen and its compounds; hydrocyanic acid; ures. Methane; ethane; ethylene; acetylene. Chloroform. Iodoform. Methylic and ethylic alcohol; aldehyde, chloral, ether, acetone. Formic and acetic acids; oxalic, lactic, tartaric, malic, citric, gallic, and meconic acids, and their salts. Glycerine; saponification; palmitic, stearic, and oleic acid. Esters. Carbohydrates; fermentation. Aliphatic and aromatic series. Isomerism. Benzene and its derivatives, benzaldehyde, benzoic acid, phenols, aniline. Alkaloids."

The paper on chemistry which the visitors would like to see set "would consist of, say, five questions on general chemistry, of which three at least must be answered, and four questions on carbon compounds, of which, say, two must be answered. This would make a total of five questions to be answered, a number not greater than is required at present by the Irish Board and which can be easily answered in two hours.

It is very important that the kind of question set should be such as will involve thought and reasoning on the part of the student and not merely the exercise of memory as to the properties and preparation of a small selection of chemical substances."

ORAL EXAMINATION IN CHEMISTRY.

In each of the four bodies visited there was an oral examination in chemistry.

At the English Conjoint Board all papers not much over or under 40 per cent. of the full value involved an oral examination. At the three other bodies all candidates were examined orally. In Scotland it was the main feature of the examination and was admirably conducted.

The visitors would like to see at the English Conjoint Board an extension of the oral examination to a larger proportion of the candidates than is the case at present, although those gaining a high value and those gaining a hopelessly low value for their papers might be exempt.

On the other hand, they "approve the way in which the oral is used at the English Conjoint Board—namely, to check the paper marks, confirming or altering them according to the judgment of the examiner."

PRACTICAL CHEMISTRY.

The visitors assert that "the only one of the four examinations visited which makes an approach to a satisfactory examination in practical chemistry is that of the English Conjoint Board. One simple salt is to be identified by chemical tests, one simple salt is to be prepared and shown up, and an account of the work done is to be written by the candidate." No analysis is required at this or at any of the examinations of the three other bodies.

"At the Apothecaries' Society of London and the Conjoint Board in Ireland two substances are to be identified by chemical tests, while at the Conjoint Board in Scotland each candidate merely applies a few tests to a solution in a few minutes as part of the viva voce examination."

The visitors "would very strongly recommend that all examining bodies should follow the English Conjoint Board in requiring a preparation to be made and exhibited, and that in all the separation and identification of two metals from a mixture of their salts or oxides should be substituted for the detection of one base and one acid by test-tubing. The value of a training in making experiments, even although of a simple kind, cannot be overrated in view of the medical student's future career."

CONCLUSIONS OF THE EXAMINATION COMMITTEE.

This committee regards the visitors' report as one of great value and considering the great importance of the suggestions made by the visitors, especially with regard to the question of retention of biology as a subject of education and examination, suggest that the Council should appoint a special committee to consider the questions raised in this report and report to the Council.

Sir VICTOR HORSLEY, seconded by Dr. FINLAY, moved the adoption of the report with reference to the Scottish Conjoint Board.

This motion was agreed to after some slight alterations had been made on the suggestion of Dr. LINDSAY STEVEN.

On the motion of Sir VICTOR HORSLEY, second by Mr. JACKSON, the Council expressed the opinion that the examination in practical chemistry was insufficient.

The report on the examination of the Irish Conjoint Board was also adopted.

Dr. NORMAN MOORE thought the Council should speak of

the examination as "satisfactory" rather than as "sufficient." He moved to this effect, but his motion failed to find a seconder and consequently dropped.

Mr. BRYANT then moved in connexion with the third report—

That a joint committee consisting of members of the Education and Examination Committees be appointed to consider the questions raised generally in the report of the Examination Committee on the primary examinations of the three Conjoint Boards and the Apothecaries' Society of London and to report to the next session of the Council.

Sir CHARLES BALL seconded the motion.

Mr. BROWN took exception to this special committee being confined in the manner proposed to members of the Education and Examination Committees.

Sir VICTOR HORSLEY moved as an amendment—

That the Council go into committee of the whole Council on the report of the Examination Committee.

He thought that with this report before them members of the Council were in a position to discuss this important question and to put into a definite form suggestions for changes in the curriculum.

Mr. TOMES seconded this amendment.

Sir WILLIAM THOMSON, supporting the motion, said that the proposals made to the Examination Committee were new to them and, of course, they were far-reaching and important and the committee felt that it was bound to seek assistance before dealing with them. There were the bodies themselves to consult before they decided to leave out biology as a definite subject on which lectures were to be given and he did not think it would be wise to decide the matter off hand.

Dr. WINDLE said that it was not proposed to leave biology out of the curriculum but merely to treat it by a different method.

Dr. MCVAIL supported the appointment of the special committee as the wisest course in all the circumstances.

Sir VICTOR HORSLEY said that he merely proposed that the Council should now discuss the opinions which had been placed before it in these reports and it could afterwards have a committee to draw up proposed changes.

On a vote being taken the amendment of Sir Victor Horsley was rejected by a large majority and the motion of Mr. Bryant was thereafter carried.

The following members were nominated to the special committee—viz., Mr. Bryant, Mr. Young, Dr. McVail, Sir Charles Ball, Sir John Batty Tuke, Dr. Norman Moore, Dr. Windle, Dr. MacAlister, and Sir William Turner.

The Case of Mr. Henry Jacob Bradlaw.

The Council next proceeded with consideration of the charges against Henry Jacob Bradlaw, in regard to whom the Dental Committee had found that the following facts were established by evidence, or admitted, at its meeting on Oct. 21st:—

(*a*) Henry Jacob Bradlaw was registered on July 21st, 1891, as in practice before July 22nd, 1878, and his address in the Dentists Register is 4, Harrington-street, Dublin. (*b*) Being a registered dentist he has sought to attract a practice by a system of advertisements in pamphlets and circulars distributed from house to house and in other ways and in newspapers containing his name, address, and qualifications and prices charged and eulogies of his dental work. The advertisements were circulated in Ireland and in London. By the Irish advertisements persons in need of dental aid were invited to consult Mr Bradlaw professionally at places in Dublin and Belfast, where he was stated to be in constant personal attendance, and in the London advertisements persons were invited to consult him at 146, Inverness-terrace, London, where he was stated to be in constant daily attendance. In the opinion of the committee the advertisements are of a nature discreditable to a professional man. In order to carry on the practice as advertised Mr. Bradlaw has associated himself in dental practice with his brother, David Barnett Bradlaw, a medical practitioner residing at 146, Inverness-terrace, and authorised and permitted David Barnett Bradlaw to carry on the advertised dental practice there in the name and on behalf of him (Mr. H. J. Bradlaw) and to personate him in so doing.

Mr. R. W. TURNER, who represented the complainants, the British Dental Association, said he understood that Mr. Bradlaw wished to make a statement to the Council. He did not know what that statement was to be but he should submit that the charges were proved, that they were even more extensive than those made against his brother (Mr. D. B. Bradlaw), inasmuch as they referred to advertisements not only in London but also in Ireland.

Mr. BRADLAW said that he was very sorry indeed for what had been done. He did not intend to transgress the rules in any shape or form and he trusted that in future his conduct would merit the approval of the Council.

The PRESIDENT: But the committee states that the advertisements are discreditable to a professional man.

Mr. BRADLAW: I have done simply what hundreds of others have done.

The PRESIDENT: You express regret at having done this but are you going to stop it?

Mr. BRADLAW: I have stopped it to a certain extent. I have stopped anything that Mr. Turner pointed out was objectionable. I have stopped all advertising except my name and address and fees and attendance in the newspapers.

Questioned as to his registered address, which it was pointed out was that of the Irish-American Dental Surgeons, he explained that he left 4, Harrington-street, seven years ago, since when he had carried on business at 78, Harcourt-street.

In answer to Mr. TURNER, Mr. BRADLAW stated that the Irish-American Dental Surgeons' business had been turned into a limited liability concern a week or two ago. He held one £1 share in it but neither his wife nor his brother held a share. There were only seven shareholders, each having only a £1 interest. All of them were registered dentists and the practice was carried on by Mr. John James Blaikley, who had conducted it before the business was turned into a limited concern. It did not issue pamphlets and he did not know that it would do so.

The PRESIDENT: Were you the prime mover in the construction of this company?

Mr. BRADLAW: No, Mr. Blaikley was. I joined because I thought there was no harm, that it was a perfectly *bonâ-fide* matter. Mr. Blaikley came to 4, Harrington-street this year.

By Sir CHRISTOPHER NIXON: So far as profits are concerned, I believe no arrangement has been made yet, but I suppose I shall participate in these equally with the other shareholders.

Mr. BRADLAW, answering other questions, explained that the dental practice had been carried on continuously at 4, Harrington-street from the time he left that address. When he was there his father was the tenant of the house but he did not know who the landlord was. He was aware that the Irish-American Dental Surgeons' advertisement followed his in an Irish newspaper but that might be because the newspaper had an alphabetical arrangement for business advertisements.

By Sir VICTOR HORSLEY: He did not allow his brother to personate him at 146, Inverness-terrace, Bayswater. When leaving for Ireland for a few days he asked him to see his patients. He was aware that his brother had been found guilty by the Council of personating him in London but he denied that he authorised his brother to personate him.

After the Council had deliberated in private

The PRESIDENT said: I have to announce the decision of the Council, which is to the following effect—that on the facts found in the report of the Dental Committee it has been proved that Henry Jacob Bradlaw has been guilty of conduct which is infamous or disgraceful in a professional respect and the Council directs the Registrar to erase from the Dentists Register the name of Henry Jacob Bradlaw.

The Case of Mr. William Herbert Ray.

Consideration was next given to the case of William Herbert Ray, in connexion with which the Dental Committee, at a meeting on Nov. 23rd, found that the following facts were established by the evidence:—

(*a*) William Herbert Ray was registered in the Dentists Register on December 31st, 1878, as in practice before July 22nd, 1878, and his address in the Dentists Register is 12, Cecil-square, Margate. (*b*) On the 16th day of January, 1903, the said William Herbert Ray was convicted at the quarter sessions for the borough of Margate of unlawfully and indecently assaulting and ill-treating a certain female named Grace Hennessy on 27th of July, 1902, and was ordered to be imprisoned with hard labour for six months. (*c*) The assault was committed at the house of the accused when he was attending her professionally. (*d*) The conviction was the result of a second trial before the same recorder (Mr. Bargrave Deane, K.C.), the jury having disagreed on the previous occasion. (*e*) The accused denied *in toto* the truth of the charge. (*f*) A petition to the Home Secretary extensively and influentially signed was presented asking for a mitigation of the sentence on the ground that, with the exception of evidence as to Mr. Ray's previous good character and certain evidence of a formal character given by the police, the only evidence for the prosecution was that of the prosecutrix herself—the defence being a denial on oath, with a suggestion that the prosecutrix, being in a very low condition and having suffered from pain and want of sleep for some days was probably hysterical and suffered from hallucination. The Home Secretary did not, however, grant the application. (*g*) The prosecutrix stated at the trial that she had reported the assault to the police at the suggestion of two ladies whom she accidentally met in the street. These ladies were not produced as witnesses for the prosecution. The accused, in the course of his evidence at the trial, alleged that the ladies did not, in fact, exist, but he suggested that the prosecutrix had been got hold of

by two men who were his enemies and who had induced her to bring this false charge against him in order to cause his ruin. Mr. Ray admitted to the committee that this suggestion had no foundation in fact and had been put forward by him at the last moment very unwisely and without the knowledge of his legal advisers.

Mr. RAY, in answer to the PRESIDENT, said that he had already said all he could say: he stood there an innocent man; he was innocent of the charge made against him. He was a married man. His wife was living and he had three children grown up. He had been in practice at Margate for 31 years and never before had any charge been made against him. The petition to the Home Secretary was signed by a brother of Sir Frederick Treves, the medical men of Margate with (he thought) two exceptions, Canon Fleming, the Bishop of Salisbury, several of the Margate magistrates, and others. Since resuming practice his patients had returned to him and he was getting more work than ever before.

In answer to a MEMBER,

The PRESIDENT explained that the girl connected with the case was a domestic servant, 19 years of age, and in the habit of going to Margate in the summer. She had put herself under the charge of Mr. Ray.

Mr. RAY stated that he saw her on four consecutive mornings and also on the Sunday evening when it was alleged the offence was committed. She should not have come that evening. She had been told not to come back unless she took a certain draught which she did not take.

The Council deliberated on the case. On the readmission of the public,

The PRESIDENT, addressing Mr. Ray, said: The Council has given much consideration to your case and the decision is as follows—that it will take no further action in the matter, therefore your name remains on the Register.

The Case of Mr. James Grant.

Another dental case followed. It was that of James Grant and in regard to it the Dental Committee at an inquiry on Oct. 21st found that the following facts were established by evidence:—

(*a*) James Grant was registered as in practice before July 22nd, 1878, and his address in the Dentists Register is 15, Chatham-place, London. (*b*) The West Central Dental Institute, Limited, is a limited joint stock company formed and registered by an unqualified, unregistered man named John Panhans for the object of carrying on the practice of dental surgery and the business and profession of dentists. The said John Panhans had before the formation of the company been convicted of the offence of practising as a dentist and the company was formed by him in order to enable him under the name of the company to continue the practice. (*c*) The said James Grant entered into the employment of the company and of the person or persons who managed it and acted as assistant to the company in order that he might be put forward as the qualified man by whom the dental practice was conducted. (*d*) Mr. Grant's defence was that he did not know that he was doing wrong and that he left the service of the company at the end of the week which followed a second conviction of the said John Panhans for practising dentistry in the name of the company.

Mr. Grant was called but did not appear.

The PRESIDENT: Mr. Grant appeared before the Dental Committee but he is not here to-day to avail himself of the opportunity of making a statement.

Mr. R. W. TURNER, on behalf of the British Dental Association, said that the association regarded this as a singularly bad case because it was an attempt on the part of Mr. Grant to defeat the ends of justice. At the police-court it was opened for the defence by Mr. Arthur Newton that a conviction could not be sustained because there was a qualified man on the premises to do the work. Mr. Grant was put into the witness-box to substantiate that statement, but he failed in cross-examination because it was clearly shown that Panhans did all the work. If Mr. Grant did not know that he was doing wrong under the Dentists Act he knew that he was being put forward by the defence in order to defeat the ends of justice. Therefore, as it was such a bad case of covering he asked the Council to inflict the extreme penalty.

The Council having deliberated for a few minutes

The PRESIDENT said: I have to announce that the Council has instructed the Registrar to erase from the Dentists Register the name of James Grant.

Restoration to Register.

Consideration *in camerâ* of an application for restoration to the Medical Register, adjourned from Nov. 28th, 1902, resulted in the announcement that the Council had directed the Registrar to restore to the Register the name of Mr. James Jerome Mackay, 190, Stockwell-road, S.E.

The Council adjourned.

SATURDAY, NOV. 28TH.

The Council resumed work to-day, Sir WILLIAM TURNER being in the chair.

The Council and the Two English Royal Colleges.

Mr. ALLEN, Registrar, read the following communications from the Royal College of Physicians of London and the Royal College of Surgeons of England, viz.:—

Royal College of Physicians, London, S.W.,
Nov. 19th, 1903.

SIR,—I am at length able to reply on behalf of this College to your letter of July last, forwarding for the information of this College the reports of the Education and Examination Committees of the Medical Council on the teaching in chemistry, physics, and biology recognised by the Royal Colleges, and on the report of the visitor and inspector of the Council on the first examination of the English Conjoint Board, together with the resolutions of the Council thereon, and inviting representatives of the Royal Colleges to a conference with a committee of the Council on these subjects.

Your letter, with its enclosures, was referred to a special committee of the two Royal Colleges for consideration and report and at a general meeting of this College held this day the following report of that committee was adopted and I was instructed to forward it to you as the reply of this College to your communication.

I am, Sir, faithfully yours,
EDWD. LIVEING, Registrar.

Sir William Turner, K.C.B.,
President of the General Medical Council.

"The delegates appointed by the Royal Colleges beg to report that having fully considered the letter of the President of the General Medical Council they recommend that the following reply be sent to the President:—

"The Royal Colleges thank the General Medical Council for the expression of their opinion respecting the courses of study and the examinations in chemistry, physics, and biology. These opinions shall receive the respectful attention of the two Royal Colleges.

"The Royal Colleges, however, regret that they are unable to accept the invitation of the President of the General Medical Council to appoint representatives to meet the representatives of the General Medical Council in regard to the questions of medical education and examination relating to the subjects above mentioned that have been raised in the reports of the Education and Examination Committees of the General Medical Council.'"

Royal College of Surgeons of England, Lincoln's Inn Fields,
London, W.C., Nov. 20th, 1903.

SIR,—With reference to my letter of the 19th ultimo, informing you that representatives had been appointed by the Council of this College to confer with representatives of the Royal College of Physicians regarding the proposed conference with a committee of the General Medical Council, referred to in your letter of July last, I am now directed to inform you that, in pursuance of the report of the representatives of the two Colleges, the following reply to your letter has been approved and adopted by the Council of this College—viz.:—

The Royal Colleges thank the General Medical Council for the expression of their opinion respecting the courses of study and the examinations in chemistry, physics, and biology. These opinions shall receive the respectful attention of the two Royal Colleges.

The Royal Colleges, however, regret that they are unable to accept the invitation of the President of the General Medical Council in regard to the questions of medical education and examination relating to the subjects above mentioned, that have been raised in the reports of the Education and Examination Committees of the General Medical Council.

I am, Sir, your obedient servant,
S. FORREST COWELL, Secretary.

Sir William Turner, K.C.B., President, General Medical Council.

Sir VICTOR HORSLEY moved:—

That the Council do represent to His Majesty's most honourable Privy Council that the courses of study and examination in chemistry, physics and biology, to be gone through in order to obtain qualifications for registration from the Examining Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England, are not such as to secure the possession by persons obtaining such qualification of the requisite knowledge and skill for the efficient practice of their profession.

He desired the Council to note that he was not raising the general question of preliminary scientific education; he was simply asking the Council to conclude one item of business. Neither was he asking the Council to institute any comparison between one examination and another or between one licensing body and another. He hoped that the Council would adopt his motion in order to put an end to a business which was really 13 years old. He might say that the profession outside this Council was watching this matter pretty closely and it expected that this would end in a determination as to who was the supreme authority in medical education. The profession recognised that the Council in this matter was merely endeavouring to carry out its statutory duties and that it had been trying to do so with every leniency and courtesy that could be exhibited. He had seen this leniency and courtesy exhibited for over five years and by every shift and method the two English Royal Colleges had tried to prevent the Council from discharging this statutory duty. The duty of this Council was to inquire into the courses of study and examination required by the examining

bodies and if it found that these were insufficient then it was lawful for the Council to represent the same to the Privy Council. In this case the English Royal Colleges were, as it were, in a contumacious position, and the time therefore had come when the Council must ask the central government, the Privy Council, to decide between them. The Royal College of Physicians of London after having taken over six months to consider the facts laid before them by the Council sent a letter which was no answer to the Council. This Council asked for comments upon the remarks made by the visitors but received none. The Royal College of Surgeons of England replied very fully. It entered very fully upon the report of the visitors and it said that not only were the statements of the visitors inaccurate but the examination was sufficient. The College directly and contumaciously challenged the opinion of the Council. The refusal of an answer by the Royal College of Physicians of London aggravated, in his opinion, the refusal of the two bodies to meet in any way the Council at that stage of the negotiations. In July he moved a similar motion which the Council in its generosity refused. On that occasion the Council requested the President to furnish to the Colleges the reports which revealed the existing condition of affairs and an attempt was made to have a conference with the two bodies. The conference never met because the Colleges refused to confer and treated the Council with absolute contempt. They were therefore contumacious.

Dr. FYE-SMITH rising to a point of order asked whether it was permissible for a member to use the word "contumacious" in this connexion.

The PRESIDENT (to Sir Victor Horsley): In what sense do you use the word?

Sir VICTOR HORSLEY: In the ordinary sense.

Dr. FYE-SMITH: What do you mean?

Sir VICTOR HORSLEY: The ordinary meaning of contumacious is a person refusing to recognise someone placed in authority over him.

The PRESIDENT: You have used the word. Go on now.

Sir VICTOR HORSLEY: Do not use it again is, I suppose, what you mean. He thought, however, that the medical profession would understand the meaning of the word and it was the medical profession he represented and not the interests of a single body. There was a constitutional point to be decided here. The Council was statutorily recognised by the central government as the head authority in medical education. That position had been challenged by the English Royal Colleges and he submitted it was the duty of the Council to go to the central government and obtain from it a final judgment in the matter.

Dr. MACKAY, in seconding the motion, called attention to the words of the Act under which the Council was entitled to act. These words, he said, stated clearly that if it appeared to the Council that the course of study and examinations to be gone through in order to obtain any qualification were not such as to secure the possession by persons who obtained the qualification of the requisite knowledge and skill for the efficient practice of their profession it should be lawful for the Council to represent the same to the Privy Council. The English Royal Colleges insisted upon a course of study and examination and this Council had found that both were insufficient. He admitted that it might become the duty of the Council to examine into the circumstances of other bodies but at present it had before it a serious case and it was its duty to represent the matter to the Privy Council. The General Medical Council existed for the protection of the public and if it did not make a representation to the Privy Council it must have a very serious and important reason for not carrying out its duty. The Council had endeavoured to see whether the English Royal Colleges were prepared to carry out its wishes and they had refused even to enter into a conference on the subject. While he recognised the valuable services to medical education of these bodies he thought the Council did right in asking them to this conference. It would have been of great value for the parties to meet together and to discuss the whole question of the relationship of examinations to courses of study. As to the existing regulations of these bodies they made it possible for a student to spend six months of an annus medicus in a grammar school or technical college. Now he did not think that the representatives of the two Colleges would care to defend such a regulation. In all the circumstances he thought the Council must go to the Privy Council and have the matter settled. He did not anticipate the very serious results that some people did; he thought that the Privy Council would bring about that conference which the Council had failed to bring about and if that was the result he thought it would be most fortunate.

Mr. BRYANT rose not to discuss the motion but to point out that the question of authority as between the General Medical Council and the Royal Colleges was not the issue that was before them at all and that the Royal Colleges having stated that the Council's opinions would receive the respectful consideration of both Colleges it was fairly well known that they meant that and the subject was under the fullest and closest consideration. In these circumstances he did not think the General Medical Council could say that the Colleges in any way were attempting not to follow out the suggestions which had been made. Where defects occurred they were anxious to remove them and so improve the education. He would not discuss the prudence or wisdom of the General Medical Council going to the Privy Council but if the Council went the Privy Council would say the Colleges were considering the subject and he, as the representative of the Royal College of Surgeons, would say here that his College was considering the subject and would continue to consider it until defects were removed.

Dr. NORMAN MOORE, in response to an appeal by Dr. Bruce, said that he had already spoken on this subject several times and there was the further difficulty of speaking at all on the point. He had, and every Fellow of the College of Physicians had, the greatest respect for the General Medical Council in the discharge of the functions committed to it by Act of Parliament, but when particular subjects had been in controversy for a considerable time there might be used phrases that would cause irritation and might seem disrespectful, though disrespect was not in the mind of the speaker. Sir Victor Horsley used the word "contumacious." They need not spend time discussing the etymology of that word. The dictionary gave the meaning of it as "swelling against, haughty, resisting legitimate authority"—that was what Sir Victor Horsley meant—and, in law, "wilfully disobedient to the orders of the court." That implied that there was a court which was vested by the law with certain powers and which had exercised these powers and then it was contumacious to disobey it. He would not go into the subject as to whether the General Medical Council was such a court or not. Let them suppose for a moment that the General Medical Council possessed all the powers that its most extreme advocates wished it to possess—let them suppose that it had all the power which Sir Victor Horsley would invest it with if he happened to become a dictator in this country—that it could advise all the licensing bodies to study such a subject for such a length of time, then what were its orders, what edict had it issued for the first year's subjects of study? Just before the Council met that afternoon members had been discussing how it should inform itself on this very subject. It had issued no edict. These Colleges were not contumacious, and why? Because they were responsible for their conduct. Under the terms of their charters and Acts of Parliament it was their duty to determine the courses of study and what should be the examinations in these. They could not transfer that duty to any other body. If the General Medical Council wished to have it transferred to other bodies let it issue an order. He thought the Royal Colleges were perfectly right in declining a conference. The only object of a conference was to secure a satisfactory conclusion. No satisfactory conclusion could have been arrived at in this instance by a conference. What were they to confer about? The delegates from the Colleges could only tell that the Colleges were considering. Sir Victor Horsley said something about the Colleges using every shift and method for delay. That was unjust. It was a kind of expression which never should have been used. In transactions with a man they always assumed that he was acting in a proper way and he said that it ought to be the same with universities and other bodies. There could be no other base. Sir Victor Horsley said there was the question as to which was the supreme authority as to medical education. He did not think there could be any question as to that. As to the public duties the Colleges had under their charters they must either discharge these or disfranchise themselves. They maintained that they were discharging these duties honestly and to the best of their ability. The General Medical Council had the undoubted right to criticise any examination but the Council was in this position: it said the fact that the General Medical Council had certain rules

with regard to the courses of study and examination rendered the people obtaining the Colleges' qualifications people not possessed of the requisite knowledge and skill for the profession. To use such an expression to the earlier studies was a twisting of words. What he thought Sir Victor Horsley meant was this—that in his opinion and that of the General Medical Council the Colleges' earlier examination might be improved. The expression could not mean more than that. It was carrying words beyond their true sense to think that it did. If the object of the General Medical Council was to ascertain whether certain powers were given to it by Act of Parliament he did not know any other way in which it could ascertain that than by applying to a court of law. The Council did not accuse the Colleges of negligence, or corruption, or anything of that kind in the exercise of the powers they had, but if the General Medical Council was absolutely supreme it had only to issue an order, and if that was the law it must be obeyed. But he doubted if any members of the Council thought so. They felt that the Council had been instituted by Act of Parliament and might wisely exercise powers which were not dependent on law but were for the general welfare of the public. When it so acted it should be supported by all the licensing bodies. In that sense it was supported by the Royal Colleges; they received its criticisms with respect, they considered them in the utmost possible way, they attached all the importance that must be attached to such a body as the Council, they endeavoured to make use of these opinions towards perfection—there was nothing perfect on earth—of their courses of study and examinations. That was their position. But they were not in a position to receive orders to do this and that and to be declared contumacious because they presumed to discuss and thoroughly to investigate opinions, however valuable these opinions might be.

Sir CHRISTOPHER NIXON, while mentioning that he was in favour of chemistry, physics, and biology being removed outside the medical curriculum, contended that in order to secure uniformity throughout the kingdom there must be a central body to lay down the law. Dr. Norman Moore said that the General Medical Council had not issued an edict. But what about the regulation with the words "approved by the Council"? That was an edict in respect to institutions in which the first year's subjects were taught which the Royal Colleges in very strong language refused to obey. Then came the question of the registration of students. So that since the words "approved by the Council" were introduced it might be said that the Royal Colleges had put the General Medical Council at defiance. The whole profession, he ventured to say, had its attention centred on this one question: Had the General Medical Council any authority beyond giving a mere pious opinion? That was the reason why the time had arrived when the Privy Council should determine whether the General Medical Council had been exercising the powers conferred upon it or whether it had been exceeding these powers.

Dr. BRUCE rose to move an amendment. He said he thought the action of the Royal Colleges had been in many ways opposed to the real interests of medicine and surgery, but he could not follow Sir Victor Horsley in moving to go to the Privy Council in this matter, because he was opposed to taking action against these recalcitrant bodies on two grounds. He was convinced that if the Council attempted to hamper the education given in the intermediate schools of the country it would be dealing a blow to the reform of secondary and elementary education which was now in the air. His second objection was involved in the result of former references to the Privy Council and looking calmly at the present situation he saw stumbling-blocks in the way of any successful issue to the action Sir Victor Horsley asked them to take. He moved:—

That the General Medical Council has to acknowledge the communications set out in the minutes of to-day from the Royal College of Physicians of London of Nov. 19th and the Royal College of Surgeons of England of Nov. 20th; that the Council is pleased to note that the opinions of the Council respecting courses of study and the examination in chemistry, physics, and biology are to receive the respectful attention of the two Royal Colleges; that in view of the reconsideration of the whole subject by the Royal Colleges and the reinspection of their reconstructed examination the Council resolves to defer in the meantime taking any further action.

Sir VICTOR HORSLEY contended that this was not a competent amendment to his motion. There was nothing in it that would not be covered by the "previous question."

The PRESIDENT ruled otherwise and called on Dr. Pye-Smith who had consented to second the proposal.

Dr. MCVAIL, interposing, suggested that if the proposal could be put Dr. Pye-Smith should give the Council evidence of the Royal Colleges' reconstructed examination because there was no such evidence before the Council.

Dr. PYE SMITH was afraid he would not be able to do so as he could only say that the Colleges had assured the Council that the matter would receive their respectful attention and that already changes had been made in the curriculum.

Sir VICTOR HORSLEY: No references are made to changes in the curriculum in what we have before us. These must be contained in some official documents and these documents ought to be in our hands.

Dr. NORMAN MOORE: The Colleges have written to the Council to say that all that the Council has forwarded to them will receive respectful consideration. That means that the fullest consideration shall be given to every remark.

Sir VICTOR HORSLEY: Dr. Pye-Smith says that the curriculum is changed. Is it a fact?

Dr. NORMAN MOORE: If I could utter a single word which would convey my meaning I should never make a speech. If the Royal Colleges could discuss this subject in a quarter of an hour they would no doubt do it, but it requires a great deal of time and consultation with a great number of people. It has been the custom to consult the teachers when any changes in the curriculum were under consideration. Certain principles of change have been adopted but the details have not been worked out. I cannot communicate these because they are not yet published in complete form. So soon as they are they will be sent here.

Sir VICTOR HORSLEY: I referred myself to Dr. Pye-Smith.

Dr. PYE SMITH said that he had told Sir Victor Horsley all he knew. What he first rose for was in recommendation of the amendment to plead once more for the cause of peace. He doubted the wisdom of receiving medical students from schools but the matter was one on which there might be difference of opinion. There had been difference of opinion in the College of Physicians as there had been difference of opinion at the General Medical Council. The opposite view, however, was held by Dr. Bruce, it was held by Dr. Lombe Atthill, and held and vindicated again and again by Sir William Gairdner, and he was sure that such a consideration would induce the Colleges to see that there was a difference of opinion. As to the conduct of examinations, the final conclusion of the visitors inspecting the examinations on the primary subjects was that of all examinations some had some good in them and some had defects. He should admit that the examinations of the two Royal Colleges had defects, but in this respect the Royal Colleges did not differ from other institutions. For all parties concerned with these examinations the results of deliberations of this Council were most admirable and useful. With regard to the conference, he regretted that the invitation of the Council was not accepted, for it was felt that when such charges as had been made—that the Council's suggestions had been put on one side and that the Council had been disobeyed—were made they were likely to raise a little of the spirit of independence, and if they were to have peace it would be well to lay aside words as to whether the Colleges had, as they said, the power to do what they had done. The question of appealing to the Privy Council was the question of, Who is master? and he ventured to deprecate the Council embarking on such questions. He thought he was justified in that if he referred to the time when the Council had a special meeting to discuss this same question and when a most important motion was proposed in the morning and run away from in the afternoon. That, he thought, was reason for the Council to postpone action. If the Council did not go to the Privy Council what would it depend upon? They should depend upon their influence. Surely they ought not to submit the rival claims of Colleges and Council which were quite open to discussion to the adjudication of lawyers who knew very little about them and their objects. He thought that doing so would be an irretrievable mischief and in any case the result would be most disastrous.

Dr. WINDLE thought that the last part of the amendment was confused and that the words were rather cumbersome, and he suggested that it might be better to make it read:

That in view of the reconsideration of the whole subject by the Royal Colleges the Council resolves to defer taking any further action until the examination has been again inspected under the new regulations.

Dr. BRUCE and Dr. PYE-SMITH were willing to accept this modification of their proposal.

Dr. WINDLE agreed with Dr. Pye-Smith that the question now before the Council ought not to be the question of the jurisdiction of the Council, but he thought that they were a little sick of hearing of charters and Acts of Parliament. What was the best way of getting the medical education improved at the present time? Was it the best plan to go to the Privy Council or was it not? In his opinion it was not. They would advance better on the lines of the amendment. He was sorry that the Colleges did not see their way to meet the Council in conference, but the communication did not really invite them. They had the option expressed in "if desired," and apparently they thought it was not desired. He was not defending the Colleges but placing them on the line that existed. As to the Colleges' regulations, were the Colleges attempting to alter these? New regulations proposed by the College of Surgeons had already appeared, having been published in THE LANCET of Nov. 21st. Among them was one proposing a minimum length of course. That was one thing the Council wanted and if instruction was given to this extent and in proper institutions the Council would have all that they could ask for from the Colleges. It was also proposed that study at an institution other than a recognised medical school should be counted for not more than six months of the curriculum. As far as the scheme went the College of Surgeons placed itself on the lines of the London University which did not require any evidence as to where a student had received education. If, therefore, the Council quarrelled with the Royal Colleges they would also have to quarrel with the London University on that point. So far the Colleges had gone to meet the Council and this was not the end of their consideration, but only a stage in their journey. Therefore he ventured to think that the Council would obtain the improvement in medical education that they desired and that was what he wished and not the determination of—Who is to be master? He should hope that the Council would adopt the same policy as in the case of the University of Oxford. Respecting that university they had a report which was not satisfactory and they agreed that they should do no more about it until a new inspection was made. He hoped it would be possible to put the Colleges' new regulations into operation as soon as possible and after inspection of the examination under them they should see what was done. Until they saw what the changes amounted to he thought that they were not in a position to go to the Privy Council.

Mr. BROWN intimated that if the motion went to a division he should vote for it.

Sir CHARLES BALL said that the spirit in which this matter had been approached that day compared very favourably with what had been previously heard on this subject. But the representatives of the Colleges, while representing their desire that the fullest consideration and the fullest information should be given to the General Medical Council, had yet left it to another member of the Council to read from a medical journal what had actually been accomplished at the Colleges. It would, he thought, have added much to the force of what the Colleges had done if they had had it stated by one of the representatives of the Colleges. He went on to contend that the dragging on of this question during the last five years had been very injuriously affecting medical education. In Ireland they did not know where they were, for when asked what they were to do they could only give the answer that what the Conjoint Board of England did that they should do. That was certainly not a satisfactory state of affairs and if Sir Victor Horsley's motion brought a climax he should support it. He did not like the amendment which postponed settlement indefinitely until the reconstructed examination of the Colleges was reinspected. The examination had not been reconstructed yet and the Colleges might delay reconstruction as long as they chose.

Dr. LITTLE regretted that the term supreme authority had been used so often that day. He hoped all would remember that the General Medical Council did not claim to be the supreme authority: the Privy Council was the supreme authority. They must thank Sir Victor Horsley for raising the issue, but he should vote for the amendment for three reasons—namely: (1) that he observed on the part of several members of the Council a disposition to change the character of their views; (2) that he wished to continue negotiations, for if the General Medical Council went to the Privy Council it should have to put very specific charges against the Royal Colleges at a time when the whole question of education was in such a condition that great changes might soon occur; and (3) that he felt persuaded they should get to an end of the matter by continuing negotiations sooner than by doing what was proposed—that was, "withdrawing our ambassador."

Dr. MACALISTER felt convinced that the information which had been laid before the Colleges since July last had had very considerable weight. To many of the Fellows of the Royal College of Physicians that information was new. Although he had not been present at the critical meeting—at any of the meetings—he knew that all the documents had been placed in the hands of all the Fellows and he knew enough to say that a very genuine change was in progress. That change, he had no doubt, would be accelerated by what had taken place since and he had no doubt that so soon as the last stages were complete a communication would be made to the General Medical Council which would be satisfactory to all who had the interest of medical education at heart.

Sir WILLIAM THOMSON asked Dr. Norman Moore if he could give the Council any idea as to when they would have a definite reply from the Colleges.

Dr. NORMAN MOORE replied that it would be out of his province to fix any date. The committees having the matter in hand would go on continuously until they had arrived at the conclusion. He was sure the Council could not wish for more.

Sir WILLIAM THOMSON thought the reply could be a little more satisfactory. He should like to know from Dr. Norman Moore, with his knowledge of how things were going on, whether the Council would have a definite answer from the Colleges by next session or, say with certainty, in 12 months.

Dr. NORMAN MOORE said he should think himself from the present state of the work that perhaps two more meetings of the joint committee might conclude its work and perhaps one meeting more of the committee of each College, with perhaps a final meeting of the joint committee. He thought three or four months sufficient for such meetings. He was not quite certain whether the work could be ended by March next but he thought that substantially it would be concluded before the Council's meeting in May next.

Mr. BROWN asked Sir Victor Horsley whether in view of that statement he would withdraw his motion. If the matter was to be determined by next session he felt sure that many members of the Council would hesitate to vote for the motion.

Dr. MCVAIL wished to propose that the further consideration of the motion and amendment should be postponed until next May.

The PRESIDENT: Don't you think the amendment does that?

Dr. MCVAIL did not think so. It was, of course, quite open to the President to take a vote on the amendment, but if that was done he (Dr. McVail) could still propose postponement. He thought that Sir Victor Horsley, having been victorious all along the line, might be satisfied with having driven them into the position in which they now were.

The PRESIDENT: I do not know exactly how we stand with regard to this question.

After a brief conversation

Dr. MCVAIL thought that Sir Victor Horsley had gained a substantial victory in this matter and that the Royal Colleges were now clearly going to come up to what the General Medical Council required, but they were only endeavouring to save themselves from the formal appearance of having acceded to the recommendation of the General Medical Council. So far as he was concerned he was quite willing to accept that. It had been got with great difficulty. He thought that now the Colleges were disposed to give way. Dr. Pye-Smith gave them hints of something going on behind the doors, Dr. MacAlister told them that the Council's documents had had considerable weight with the Fellows of the Royal College of Physicians, and then Dr. Windle had quoted from THE LANCET a report of action taken, which action Dr. Norman Moore did not repudiate. Therefore he thought that substantially the Council had achieved what it had been contending for so long. The whole thing was to be finished by the Colleges in four months or so and they should have before them the whole case at their next meeting. He thought that in the circumstances Sir Victor Horsley might withdraw his motion.

Sir VICTOR HORSLEY wished to speak on the amendment because he must be satisfied that the authority and the influence of the General Medical Council, which had been challenged not merely by the English Colleges but by other bodies which had followed them, would be restored. Dr. Pye-Smith said that the quarrel was a petty one. But the scientific education of medical students was not a petty matter at all but the most serious question any man could take up. There were points concerning the scientific education of students on which they had not been satisfied. The first of these was the registration of students, the whole of which had been destroyed by the action of the Colleges. Where was the registration of students to come from? Nothing had been said as to the scientific education of the students being brought back to what it was before 1901. On the contrary, the English Colleges had said that they had their own register. Then as to the reconstruction of examination, what finality was there? They were told that change in the curriculum was in process, but there was not a word as to where the courses of study were to be carried on, nor a word on the central point which originated this discussion. The original contention of the Council was that it should have a supervisory control over the teaching institutions. The Council had not surrendered that control and he asked what had they to show that the Council would be allowed supervision in the future. He had not heard a word which showed that the Council's supervision would not be challenged. The Colleges said they reserved to themselves to say what courses of study and examination should be adopted. They had given a tardy acknowledgment that their examination and courses of study were not what they professed in this Council they were. They had acknowledged that change was in progress. And they would come in May next and say: "Do you approve of that?" They were going to shelve the Council again and he asked members not to vote for the amendment thinking that they had settled the whole question. He could not see that he should be justified in the interests of medical students or justified in the interests of those who had sent him to the Council in withdrawing his motion and he hoped that for similar reasons the Council would not accept the amendment.

The PRESIDENT proceeded to arrange for a vote on the subject and Dr. BRUCE, at the instance of Sir VICTOR HORSLEY, substituted in the last part of the amendment the words "courses of study and examination" for the words "whole subject." Sir VICTOR HORSLEY also wanted registration of students to be included, but Dr. NORMAN MOORE objected that that was not a question under debate. The amendment was finally arranged as follows:—

That the General Medical Council has to acknowledge the communications set out in the minutes of to-day from the Royal College of Physicians of London of the 19th November and the Royal College of Surgeons of England of the 20th November; that the Council is pleased to note that the opinions of the Council respecting courses of study and examination in chemistry, physics, and biology are to receive the respectful attention of the two Royal Colleges; that in view of the reconsideration of the courses of study and examination by the Royal Colleges the Council resolves to defer taking any further action until the examination has been again inspected under the new regulations.

On a division 16 voted for this amendment and 12 against it. One Member did not vote and two were absent.

The PRESIDENT: The amendment has now become a substantive motion.

Mr. BROWN: I beg to move—

That the consideration of the motion be postponed.

Sir JOHN BATTY TUKE seconded this proposal. The terms of the motion, he said, were humiliating to the Council.

Dr. MCVAIL remarked that the motion committed the Council to take no action in the matter until after the inspection of the examination under the new regulations. The position was absurd and he thought the best course would be not to adopt Dr. Bruce's proposal but to postpone the matter.

Dr. BRUCE objected to the words "humiliating" and "absurd." In the interests of peace he urged that they should go on. He pressed his proposal.

Sir VICTOR HORSLEY hoped that in the interests of real peace Mr. Brown's motion would be accepted.

The Council divided on Mr. Brown's proposal. On a show of hands the PRESIDENT announced that 13 voted for it and 13 against it. On names and numbers being called it was found that 14 voted for it and 13 against it. One member did not vote and three were absent.

As Mr. Brown's motion was thus carried the question was postponed *sine die* but it may be raised again in some form in the session of May next.

The Council adjourned.

MONDAY, NOV. 30TH.

The Council met to-day, Sir WILLIAM TURNER being in the chair, and before it rose concluded the work of the session.

The Inspection of Final Examinations.

The first business was to receive from the Examination Committee reports on the inspection of the following final examinations—viz.: the English Conjoint Board, the Irish Conjoint Board, the Apothecaries' Society of London, and the Apothecaries' Hall of Dublin (July, 1903). These reports were in each case presented by Mr. BRYANT, chairman of the Examination Committee.

English Conjoint Board.

The following was the report of the committee on the examination of the English Conjoint Board, VIZ.:—

The final examination in medicine, surgery, and midwifery held in January, 1903 commenced on Tuesday, the 13th, and continued until the 30th. 228 candidates were examined in medicine, of whom 127, or 56 per cent., passed and 101, or 44 per cent., were rejected. 177 were examined in surgery, of whom 102, or 58 per cent., passed and 75, or 42 per cent., were rejected. 186 were examined in midwifery, of whom 137, or 74 per cent., passed and 49, or 26 per cent., were rejected. 12 candidates took up all three subjects, of whom five passed in all, two passed in two and failed in one, three passed in one and failed in two, whilst two failed in all subjects. 66 candidates took up two subjects, of whom 28 passed in both, 25 passed in one and failed in the other, and 15 failed in both.

According to the regulations a candidate referred on the final examination, or on one or more of its three parts, is not admitted to re-examination until after the lapse of a period of not less than three months from the date of rejection and is required before being admitted to re-examination to produce a certificate of having attended the medical or surgical practice, as the case may be, at a recognised hospital during the period of his reference; and in regard to midwifery and diseases peculiar to women a certificate of having received not less than three months' instruction in that subject by a recognised teacher.

The general arrangements for the examination were similar to those described in the last report. Two papers were given on the principles and practice of medicine, one on midwifery and diseases of women, and one on surgical anatomy and the principles and practice of surgery. By the regulations, if a candidate is unable to answer at least four of the questions on any of the papers he must report the fact to the presiding examiner and he is not allowed to proceed with his examination. Also, all papers must be read by two of the examiners and the same examiners conduct the oral examination of the candidates whose papers they have read. A question bearing on mental diseases, one on diseases of children, and one on toxicology are included in one or other of the papers on medicine; and on Paper 2 in medicine the visitor and inspector were pleased to see an important question bearing upon medical anatomy.

It is prescribed by the regulations that in medicine a candidate must answer very well in order to get more than half marks for either paper; the minimum mark for the two papers taken together is six, when the maximum is 20. The minimum for the papers on surgery and midwifery is three for each paper, the maximum in each being ten. The visitor and inspector read the answers of several candidates whose oral and practical examinations they had followed and pronounced the answers as good, well written, and given with satisfactory fulness and detail, with few errors in spelling.

In the clinical examinations no written report of either medical or surgical cases is required. For the first of the cases in clinical medicine a candidate "was allowed ten minutes in which to examine the patient without interruption, but under the eyes of the examiners, and was then questioned by the examiner on the case for another ten minutes in the hearing of his co-examiner;" a second, third, or fourth case was also given and questioned upon.

The examination lasted 30 minutes and at its conclusion each candidate was required to write a prescription at a side table for some specified disease.

In clinical surgery the candidates under the five years' regulations were examined orally for 30 minutes on at least two cases, each of which they had been previously allowed to examine by themselves for five minutes. Several candidates were examined on more than two cases and were then taken over a wide range of surgical subjects. At the conclusion of the clinical examination each candidate was required to write at a side table a short description and diagnosis of two microscopical specimens of new growths or crystals, and ten minutes were allowed for this. The visitor and inspector state that they were impressed by the thoroughness of this examination and the uniformity in the standard of answering that was required. In clinical medicine and surgery the cases were numerous and excellent. In the oral examination in medicine and surgery a different pair of examiners were allotted to each group of candidates, and both examiners examined each candidate: in medicine one of the two for ten minutes in urine testing and the other for another ten minutes in pathological specimens. The oral examination in surgery was conducted at the Royal College of Surgeons at five tables. Every candidate was examined at two tables, ten minutes at each table. Excellent pathological specimens were upon all the tables and upon two or three of them each candidate was questioned.

In practical surgery each candidate was examined for 15 minutes upon a large collection of surgical instruments, splints, and in bandaging, as well as upon surface surgical anatomy and the lines of incision for operations. No operations upon the cadaver were

practised. The examiners appeared to the visitor and inspector to set the standard of marking rather high.

The examination in midwifery and diseases of women was pronounced by the visitor and inspector "a most excellent and practical one." Every candidate was examined for ten minutes by one of the examiners alternately at two tables—at one table in midwifery and at the other in gynæcology. Upon each table (four in all) an ample supply of pathological specimens and instruments was provided, as well as female pelves, "dolls," pessaries, &c. To pass this examination each candidate must have half-marks.

In medicine the maximum marks are 50. To pass the candidate must get 25. In surgery the maximum is 30 and to pass he must obtain 15. In midwifery the maximum is 20 and pass marks 10. The visitor and inspector were not satisfied with the system of marking adopted by the Colleges and refer to the former report for the reasons of their objection. On page 19 of the present report they illustrate the defect of the system adopted and point out that where the maximum mark for a subject is five and a candidate in the opinion of the examiners deserves anything more than one whole number up to five, he is given the benefit of the fraction and awarded the next number above; and as the pass mark is 50 per cent. it follows that a candidate who in the opinion of the examiners just qualifies to pass must secure 3 or 60 per cent. They also support this view by an example. They express the opinion that the maximum marks awarded at any portion of the examination should not be less than ten. The visitor and inspector in their observations at page 17 of the report pronounce the arrangements for the different parts of the examinations to have been excellent. There was not the slightest hitch or delay in any part of the examination, and considering the large number of candidates that were examined the organisation that ensured such results must be looked upon as perfect. They express their satisfaction that the time devoted to the examination in clinical medicine and surgery has been extended to 30 minutes and that the examination in clinical surgery is now as good a one of its kind as could be desired. They regret that the recommendation made in their last report "that in addition to the oral examinations candidates should be required to furnish a written report of at least one medical, as well as of one surgical, case has not been adopted." This committee are of this opinion. They likewise regret the absence of, and can see no difficulty in providing for, a special examination in ophthalmic surgery such as is so general in Dublin, and express an opinion "that no one should be granted admission to the Medical Register who did not give evidence by examination of having had adequate ophthalmoscopic training and who could not show at least that he was able to delineate the vessels on the fundus oculi," which opinion this Examination Committee endorses. The visitor and inspector also regret that there is no examination in operative surgery on the cadaver.

The Committee of Management of the Conjoint Board state that they have no remarks to make on the report but they inform the Council that inasmuch as some remarks are made by the visitor and inspector in reference to the examination in operative surgery, clinical, ophthalmic, and aural surgery, and to the scheme of marks, they have suggested to their respective Colleges that the Court of Examiners might be requested to take these remarks into consideration. Upon this suggestion the two Royal Colleges have arranged to act. The final conclusion of the report, that the final examinations of the Conjoint Board of England are "sufficient," is satisfactory to this committee.

Mr. BRYANT, seconded by Dr. FINLAY, moved the adoption of the report.

Mr. BROWN moved an amendment to the effect that the further consideration of the report be postponed until after the remarks of the Court of Examiners had been forwarded to the Council.

Sir VICTOR HORSLEY seconded this amendment.

Dr. MCVAIL thought this amendment should not be pressed. This report, he said, was quite as satisfactory as others they had adopted and when the work of inspecting the final examinations was completed they could have a report on the whole series and on this have a debate upon points of detail.

Dr. MACALISTER said that the bodies here had done all they could do at this stage—namely, to refer the criticisms passed on the examination to the Court of Examiners for their consideration.

The amendment of Mr. Brown was rejected and the report adopted.

Irish Conjoint Board.

On the examinations of this body the Examination Committee reported as follows, viz.:—

The visitation and inspection of the Irish Conjoint Final Examinations of the Royal Colleges were completed in May, 1902, and the carefully considered report of the visitor and inspector upon the examinations contains criticisms and suggestions which demand serious consideration by the bodies inspected. The final decision of the reporters must, however, be acceptable to this committee, for after viewing the examination as a whole they write: "We are of opinion that it is a fair and carefully conducted one and that as regards its sufficiency it fulfils the requirements of the Medical Act."

In the report by the committee of management adopted by the councils of the two Royal Colleges on Nov. 6th, 1902, we are assured that the recommendations of the visitor and inspector "are being carefully considered by the committee of management who are now drafting the details of the method of conducting the examinations" of a revised curriculum which was adopted by the Colleges in July last since the visitation and inspection. As in the case of the University of Dublin, this Irish Conjoint Board divides its examinations in medicine and surgery into two parts and as the visitor and inspector had not inspected the first part the committee recommend the Medical Council to pursue the course it adopted last May with respect to the University of Dublin.

The visitation and inspection of Part II. of the final examinations of the Conjoint Board of Ireland was made in April and May of 1902 and was reported upon by this committee in November of the same year. In this report the Council was recommended by the committee to direct that Part I. of the final examination should be visited and inspected and in accordance with this wish the visitor of this Council carried out his instruction in April, 1903, but unfortunately without the assistance of the inspector, Sir G. Duffey, who was too ill to attend.

When the report of Part II. of the final examinations was made in November, 1902, it was known that a "revised curriculum" was being drafted with the details of the method of conducting the examinations. This scheme, as a whole, was adopted by the Conjoint Colleges in July, 1902, and is now in force. The new curriculum requires five years of study at a medical school, except in the case of candidates who have studied for one year in institutions recognised by the Conjoint Board of England for the teaching of chemistry, physics, and biology. The visitor, in his report upon Part I. of the examination, tells us that "all the suggestions contained in the report of the inspector and visitor in May, 1902, had been accepted and acted upon."

That the examinations in pathology, therapeutics, and forensic medicine were carried out in strict accordance with the new regulations of the Conjoint Board in a painstaking and thorough manner. That the examination in pathology was at once practical and scientific with abundance of morbid specimens and of microscopic preparations, also that the successful candidates displayed a good knowledge of the subject. "In the departments of therapeutics and forensic medicine there was also an ample supply of specimens." "The marking was by no means lenient." The visitor finally reported that the oral examination was a good one and "sufficient."

No opinion was given by the visitor upon the written papers. "Owing to a misunderstanding on the secretary's part the papers asked for by the visitor were not forwarded."

To this Examination Committee the conclusion of the visitor after his inspection of Part I. of the final examination, "that the oral examination was a good one and 'sufficient,'" seems to support the following conclusion by the visitor and inspector after the visitation of Part II. in May, 1902:—"We are of opinion that it is a fair and carefully conducted examination and that as regards its sufficiency, it fulfils the requirements of the Medical Act."

On the motion of Mr. BRYANT, seconded by Dr. BENNETT, the report was adopted.

Society of Apothecaries of London.

The report respecting this society was as follows:—

The final examinations of this corporation, which are held monthly, are divided into two sections, the first composed of three parts and the second of two parts. Candidates may take up both sections together but are advised to take these sections separately—Section 1 at the end of the fourth year, Section 2 at the end of the fifth year. Section 1 must be passed before Section 2.

Section 1 consists of three parts:—

Part I. (A) includes a written examination in the principles and practice of surgery, surgical pathology, and surgical anatomy; an oral examination in surgery, surgical pathology, operative manipulation, surgical anatomy, instruments, and appliances. Part II. (B) includes written and oral examination in the principles and practice of medicine, including therapeutics, pharmacology, and prescriptions; pathology and morbid histology, forensic medicine, hygiene, theory and practice of vaccination, and mental diseases. Part III. (C) which may be taken with Section 2, includes written and oral examination in midwifery, gynæcology, and diseases of new-born children; examination in obstetric instruments and appliances.

Section 2 consists of Part I. (A) clinical surgery; Part II. (B) clinical medicine and medical anatomy. Candidates may enter in Section 2 for A and B together or separately.

EXAMINATION IN SURGERY.

The general arrangements for the examination were satisfactory. Each candidate—there were 11—was examined by the four examiners in the clinical, practical, and oral examinations. The paper on surgery contained six questions, one of which was upon eye surgery. Four of them, and no more, were to be answered. Two questions were given on pathology and two on surgical anatomy, but only one of each had to be answered. So out of ten questions on surgery six only had to be answered, and for the surgical paper three hours were allowed. The questions were good. Except in doubtful cases the answers were read by one examiner only.

For the clinical examination, in which each candidate was examined for 20 minutes, there were sufficient cases, both in number and character, and the visitor pronounced the examination to have been a fair and searching one. This committee would, however, desire to see the length of time allowed for this part of the examination on clinical surgery prolonged for another ten minutes; half an hour is a minimum as to time for such an important subject as clinical surgery.

The examination in practical surgery included an examination for ten minutes at each of two tables, one devoted to surgical anatomy and operative manipulation and the other to instruments and bandaging. The instruments and appliances available were good and sufficient and three living models were available.

The oral examination in systematic surgery and pathology was pronounced by the visitor to have been a good and searching one. Each candidate was examined for ten minutes in surgery and for another ten minutes in pathology. The minimum pass mark in this examination was in each subject 50 per cent. The method of marking was judicious, being based on the percentage system. Of the 11 candidates who presented themselves for examination in surgery seven passed and four failed. There is apparently no provision in the regulations requiring evidence of study during the period for which a candidate is referred. This is to be regretted, for such requirement should always be made and enforced.

EXAMINATION IN MEDICINE.

This examination was conducted on the same lines as that in surgery and the arrangements for it were excellent.

Written examination.—Three papers were given at this examination:

one on medicine and therapeutics, containing six questions, four of which must be answered; three questions in pathology, two of which must be answered; and four questions in forensic medicine, hygiene, and insanity, three of which must be answered. In the case of the last paper the visitor drew attention to the fact that there was no question on hygiene, but the court of examiners of the body visited showed in their report that this was an accident. For the first paper three hours were allowed, for the second one and a half hours, and for the third paper two hours. The questions on the three papers the visitor pronounced to be unexceptionable. The marking was likewise satisfactory to the visitor.

In the clinical examination each candidate was assigned a case out of the many which were present and half an hour was allowed for its examination. The candidate was then given another half-hour in which to write a report on the case, including its diagnosis, prognosis, and treatment. One of the examiners also gave the candidates an oral clinical examination on another case which lasted 15 minutes. This examination was supervised by the two examiners. The examination is pronounced by the visitor to be a good one although many of the candidates appeared to be imperfectly acquainted with the method of making a systematic clinical examination.

The examination in pathology, urine testing, and microscopic specimens was pronounced by the visitor to be satisfactory. Each candidate was sent to a table upon which was a selection of recent and of museum morbid specimens, upon which he was examined for 15 minutes. He then passed to a second table upon which were microscopes and a variety of slides illustrating urinary sediments, parasites and different pathological conditions and was examined for another 15 minutes. For a third quarter of an hour he had to examine a specimen of urine and to report the result in writing. The visitor pronounced the examination itself to have been satisfactory, although the knowledge of pathology displayed by the majority of the candidates was indifferent.

In the written examination on midwifery there were in the paper four questions, but only three had to be answered. In that on gynæcology there were two questions, but only one had to be answered. The oral examinations in medicine, forensic medicine, and in midwifery and gynæcology were conducted at three tables, one for each subject, and each candidate was under examination for 15 minutes at each. On the medicine table was a volume of plates of skin diseases—apparently no morbid specimens. On the forensic medicine table there were specimens of poisonous drugs, chemical reagents and apparatus, and samples of cloth acted upon by acids. On the midwifery table a female pelvis, fœtal skull, a few museum specimens, and some obstetrical instruments. Close by there was also a "phantom," which was used once. The visitor expresses no special opinion upon this part of the examination.

Of the 14 candidates examined in medicine seven passed and seven failed. In forensic medicine seven passed and five failed. In midwifery four candidates out of the ten examined failed. In the concluding observations of the visitor pleasure is expressed at the great care and thoroughness with which the whole examination was conducted. He specially mentions as commendable the examination in pathology and urine testing, as well as in medical jurisprudence and hygiene. He notices the absence of a special examination in ophthalmic surgery, but does not note that a special question in eye surgery was included in the surgical paper. He expresses an opinion that the art of prescribing should have more attention at this examination. His conclusion, however, is that the final examination is "sufficient." This report is signed only by William Bruce, visitor, on account of the sad illness and irreparable loss of our inspector—Sir George Duffey. To this committee the conclusion of the visitor that the examination is "sufficient" is satisfactory.

On the motion of Mr. BRYANT, seconded by Dr. BENNETT, the report was adopted.

Apothecaries' Hall of Ireland.

The committee reported on this Hall as follows, viz.:—

There were two candidates for the first examination, one for the second, one for the third, and five for the final. At the first examination one came up for chemistry and was rejected. The second came up in osteology, pharmacy, and biology and passed in all three subjects. The inspector reported the examination in practical pharmacy to have been excellent. The candidate for the second examination came up in anatomy, physiology, and materia medica. He was rejected in the first two subjects but did well and passed in materia medica. The candidate for the third examination came up in medical jurisprudence and hygiene and passed in both subjects. All the five candidates for the final examination had been up before. Out of the four who came up in medicine one passed and three were rejected. Of the five who came up in surgery one passed and four were rejected. The successful candidate was said to have passed in surgery very creditably by the surgical examiners. Of the four who came up in midwifery one passed and three were rejected. Of the two who came up in ophthalmic surgery one passed and one was rejected.

The inspector reported that the examination was thoroughly and satisfactorily conducted. He added to his report some general conclusions upon his three years' experience as inspector, which are worthy of attention. The examination committee of the Apothecaries' Hall express pleasure in the fact that the inspector reports that the examination was thoroughly and satisfactorily conducted and state that the inspector's observations relative to the marking will receive full consideration.

Mr. TICHBORNE took exception to certain statements in the report and it was arranged that he should be given an opportunity of appending an explanation.

The report was agreed to like the others.

In Camerâ.

The Council sat for over an hour in private. On the readmission of the public

The PRESIDENT announced, first, that the Council had resolved to restore to the Medical Register the name and qualification of Mr. Charles Augustus Bynoe, Licentiate of the Royal College of Surgeons of Edinburgh; and, secondly, that the President had been authorised to communicate with the President of the Local Government Board with regard to death certification.

Preliminary Examinations.

Sir JOHN BATTY TUKE submitted a report from the Education Committee on certain preliminary examinations as follows:—

The Education Committee have had before them detailed reports by Dr. M'Cormick on the results of his inspection of the examination papers set and marked answers sent up by candidates, in the medical preliminary examinations held by the Educational Institute of Scotland and the Conjoint Board in Ireland. These bodies have also submitted to the committee full particulars of their methods of marking and other details of their systems; and these, with Dr. M'Cormick's comments, have enabled the committee to form a satisfactory judgment on the scope and standard of the examinations in question.

As regards the examination of the Educational Institute of Scotland the improvements already effected or about to be introduced are so satisfactory that the committee feel justified in anticipating that during the next year the examination will have attained in every respect the standard desired by the Council. In future the examination in Latin and Greek, like that in French and German, will be conducted entirely by means of unprescribed books. Steps have also been taken for the appointment of examiners who have had experience of the standards and methods of the Scottish university preliminary and leaving certificate examinations, and these examiners will meet to revise the papers and marks conjointly before deciding on the passing or rejection of the candidates. In order to give the committee an opportunity of observing the effect of these and other changes it is proposed to continue for the year 1904 the recognition hitherto extended to the examination. It is hoped that next year the committee will be in a position to place the examination definitively on the list of those recognised by the Council.

With respect to the examination of the Irish Conjoint Board certain improvements in regard (1) to the distribution of marks between different branches of the several subjects included, (2) to the preponderance assigned to the oral examinations in classics and mathematics, and (3) to the requirements of a minimum standard in *each* of the subjects of examination, have still to be carried out. The committee have adopted a number of specific recommendations on each of these heads which they propose to communicate to the Conjoint Board. They are of opinion that the continuance of the Council's recognition should be made dependent on the adoption of these recommendations. But in order to give time for the necessary modification in the Board's regulations they propose in this case also that the examination should continue to be recognised for the year 1904.

He moved that the report be received and entered on the minutes and adopted. In answer to a question by Dr. McVail he added that the College of Preceptors had adopted the system of unprescribed books with an alternative. He had no definite information as to whether the Irish Board would do the same but the matter would again be brought under their notice.

Dr. NORMAN MOORE seconded the motion.

Sir CHRISTOPHER NIXON thought that the Irish Conjoint Board would be unable to come into line with others in regard to the use of unprescribed books so long at least as the Royal University of Ireland was allowed freedom on the subject.

Dr. MACALISTER said that what the Council had been doing was to proceed upon the joint report of the three referees who had dealt with this subject. In that report the examination in unseen translations was held to be the ideal form, but there was no condition laid down that the system should be universally applicable. The Council was aiming at it but it could not lay down a universal rule.

Sir CHARLES BALL believed that the recommendations now made would produce an examination satisfactory to the Council. The examination was satisfactory to the Conjoint Board.

Sir J. W. MOORE said that as the representative of the Royal College of Physicians of Ireland he should like to express his recognition of the great courtesy and consideration shown in regard to the Irish Conjoint Board's preliminary examination. He could assure them that the committee of management of the Conjoint Board had spared neither time nor trouble nor expense in trying to improve the examination in every possible way and to bring it up to the proper standard. He thought that committee had achieved a large degree of success and he had no doubt that it would give the fullest consideration to any suggestion coming from the General Medical Council. He did not know what the Conjoint Board would do if this examination did not exist. The Board was anxious in every way to carry out the views of the Council's Education Committee.

Mr. TICHBORNE took exception to the penultimate sentence in the paragraph relating to Ireland, contending that against the understood arrangement that examinations

in general knowledge should not be under the charge of medical corporations it was proposed to perpetuate the preliminary examination conducted by the Conjoint Board of Ireland. He moved to this effect.

Mr JACKSON seconded this amendment which was rejected by 18 votes to 3

The report was then adopted.

Sir JOHN BATTY TUKE next submitted a report of the Education Committee on a communication from the Apothecaries' Hall, Dublin. The communication and report thereupon were as follows :—

40, Mary-street, Dublin, Nov. 19th, 1903.

To the President of the General Medical Council.

Dear Sir,—I beg to inform the President of the Medical Council that we, the Apothecaries' Hall of Ireland, intend on the 1st of the year 1904 to resume our preliminary examinations in arts.

It is intended, for the purpose of conducting these examinations, to appoint qualified university non-medical graduates.

When our arrangements are completed we shall be pleased to facilitate any inspection the Medical Council desire.

I remain, dear Sir, yours,

ROBERT MONTGOMERY, M.R.C.S., Secretary.

This is an intimation that the authorities of the Apothecaries' Hall, Dublin, intend next year to revive the preliminary examination in arts which, in deference to the express wish of the Council, they have for many years discontinued. The committee are unaware of any circumstances which would justify so serious a reversal of the educational policy which, at the Council's instance, has been generally adopted by the licensing bodies, including the Apothecaries' Hall. The committee, therefore, strongly deprecate the proposed re-establishment of a preliminary examination conducted by a professional body which has no special relation to questions of general education. Should such an examination be, notwithstanding, instituted for candidates seeking the Licence of the Dublin Apothecaries' Hall it will rest with the Council to decide whether it should be recognised for the purpose of the registration of students in general. Such recognition would affect in a practical way the arrangements of other licensing bodies in regard to preliminary examination.

Accordingly the committee, in view of the grave educational issues involved, do not recommend that the Council's approval should be given to the step contemplated by the Apothecaries' Hall, Dublin.

He (Sir John Tuke) hoped that this report would be received, entered on the minutes, and adopted. Most members of the Council, he said, were aware that upwards of 30 years ago all the medical corporations gave up examinations in general knowledge with the exception of the two authorities in Dublin. The Apothecaries' Hall, however, in 1885 also gave up its examinations in arts and no reasons had been put forward why a retrograde step should now be taken. To revive an examination which had always been deprecated and objected to by the Council at large was different from sanctioning what might be spoken of as a sort of remnant in the case of the Conjoint Board, which, he believed, would get rid of its arts examination at the earliest possible moment after a suitable examination was established to take its place.

Dr. MCCALL ANDERSON seconded the adoption of the report.

Mr. TICHBORNE said that the Apothecaries' Hall, Dublin, had not wished to undertake the preliminary examination in arts. To reinstitute examinations would mean a great deal of responsibility to the Hall; it would not mean money, it might mean loss. But they were forced into taking the step by the fact that the Conjoint Board had formed a cordon round the Hall that prevented any one of the students taking the Board's preliminary examination going to the Hall for their medical education. So long as such a system existed he did not see how the Hall could carry on its work successfully. He understood that the Conjoint Board did not contemplate giving up its examinations in arts and if that was so the Hall wished to persuade the General Medical Council to inspect any examinations it might institute. Legally, by its Act of Parliament, as well as by the Medical Act, the Hall was entitled to conduct examinations in arts and it wished to be on all fours with the Conjoint Board. If it was necessary for the Conjoint Board to have the conduct of examinations in arts it was necessary for the Hall. If the Hall re-established such examinations the General Medical Council had no reason to suppose that they would not be properly conducted. The Conjoint Board had not been particularly successful with these examinations and the Hall thought it would be advantageous to have the liberty to inaugurate a system of its own.

Mr. BROWN thought it would be only just that the Hall should be placed on the same footing as the Conjoint Board, especially as it had statutory rights to conduct examinations in arts.

Sir WILLIAM THOMSON protested against any assumption that there was hostility in this matter between the Conjoint Board and the Apothecaries' Hall. The only reason why the Conjoint Board did not give up its examinations in arts was that nothing had been instituted yet to replace them. The Conjoint Board was ready to give up its examinations to-morrow if something suitable were substituted.

Sir JOHN MOORE had heard with extreme surprise that the Apothecaries' Hall was, or should be, on all fours in this matter with the Conjoint Board. The Apothecaries' Hall had no school. There was no *raison d'être* for preliminary examination at the Apothecaries' Hall; it was simply going there to pay for examination.

Dr. MCVAIL was prepared to vote for the adoption of the report, but, after all, the vote would be merely a piece of pious opinion on the Council's part. The Apothecaries' Hall could do exactly as it thought fit and what was here almost rebellion against the Council's wish was what had occurred in connexion with other subjects and other bodies. The gateway having been once opened it was not likely that only one party would pass through it. It was very unlikely that in future they would not have other bodies acting independently on lines of their own. He thought it was a great pity that at this time of day after all the discussions they had had that they should be brought back to the very first steps of their long, long journey.

Mr. TICHBORNE remarked that if the Conjoint Board was complimented on acceding in spirit to the wishes of the General Medical Council he must remind the Council that the Apothecaries' Hall had acceded to the Council's wishes in act.

The PRESIDENT: Why are you going out of your good way? Why, after so many years, are you going back?

The report was adopted.

Reports of the Council's Proceedings.

Dr. NORMAN MOORE had on the programme a notice to move—

That it be referred to the Executive Committee to consider and report to the Council upon the possibility of making arrangements with the medical journals for an authorised report of the discussions of the Council.

On being called on he said: At this very late hour of the session I ought perhaps to withdraw this motion. It must take some time to discuss but I will explain in a sentence or two what was proposed. I fully recognise the excellence of the reports of the debates of the Council which appear in the medical journals. They are excellent but, of course, all reports of that kind must contain errors, very serious errors; and I thought it might be worth while if the Council considered whether it could enter into an arrangement which would, of course, cost the Council some money but which might provide in some way for greater precision. It might be to our advantage. I propose in a future session to present this but for the present I ask leave to withdraw it.

Leave was given and the subject dropped.

The Pharmacopœia Committee's Report.

Dr. MACALISTER moved that the following report should be received, entered on the minutes, and approved :—

The Pharmacopœia Committee beg leave to report that from May 24th to Nov. 24th the number of copies of the British Pharmacopœia sold was 711, and of the Indian and Colonial addendum 123. The total numbers disposed of are thus: of the Pharmacopœia, 34,591; of the addendum, 684.

The committee held a special meeting on Oct. 30th for the purpose of considering in detail the questions raised by a digest of criticisms, prepared by their direction by Mr. W. Chattaway. At this meeting a number of details were considered and certain were selected as deserving of inquiry in preparation for the revision of the Pharmacopœia.

The final instalments of the investigation on the solubilities of drugs, conducted in the Research Laboratories of the Pharmaceutical Society of Great Britain by Professor Greenish, have been forwarded by the council of the society to the committee. These will, as in other instances, be published for general information. The series of memoirs on this subject constitutes a valuable addition to the data at the committee's disposal.

Professor Dunstan, of the Imperial Institute, has made substantial progress with the examination, begun last year, of the pharmacopœial tests for arsenic. In view of the laborious character of the inquiry the committee propose that a second and final grant of £50 should be made to Professor Dunstan to enable him to complete the work and to present it in a form that may be immediately available for the preparation of the next issue of the Pharmacopœia.

Other researches, initiated in conference with the representatives of the pharmaceutical societies of Great Britain and of Ireland, are in progress.

Dr. NORMAN MOORE seconded the motion which was agreed to.

On the motion of Dr. MACALISTER Sir J. W. Moore was appointed a member of the committee in place of Dr. Lombe Atthill.

Public Health.

Dr. BRUCE, seconded by Sir CHARLES BALL, moved that the following report by the Public Health Committee should be received and entered on the minutes:—

The committee had the following communication from the War Office submitted to them at their meeting on Nov. 27th:—

War Office, London, S.W., Nov. 26th, 1903.

SIR,—I am directed by the Secretary of State for War to submit the following recommendation of the Advisory Board for Army Medical Services—namely, that certificates granted by the sanitary officer of the Bombay command may be accepted by the General Medical Council as certificates for the D.P.H. examination, under Rule 3 (*c*) of its rules and regulations for diplomas in public health. This recommendation has also the strong support of the Director-General, Army Medical Services, and the Secretary of State trusts that it may receive favourable consideration.

The sanitary officer of the Bombay command has his headquarters at Poona a city of 120 000 inhabitants. Further, the military population of the command is approximately 15,000 men.

I am also to point out that the sanitary officer of this command has exceptionally good opportunities for imparting a thorough practical knowledge of the duties, routine and special, appertaining to public health administration.

I am to request that this communication may be placed before the Council, which is, I understand, now in session.

I am Sir, your obedient servant,

The Registrar, General Medical Council. EWD. WARD.

After maturely considering the different points in connexion with the foregoing communication the committee, taking into consideration the precedent of Gibraltar, recommend the command in Bombay to be added to the list of recognised military districts under Rule 3 (*c*), which runs as follows:—

"Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has during six months (of which at least three months shall be distinct and separate from the period of laboratory instruction required under Rule 2) been diligently engaged in acquiring a practical knowledge of the duties, routine and special, of public health administration under the supervision of.....

"(*c*) A sanitary staff officer of the Royal Army Medical Corps having charge of an army corps, district, or command, recognised for this purpose by the General Medical Council."

The committee have had before them official information from which they gather that the sanitary officer in charge of the Bombay command is registered as holding the Diploma in Public Health and devotes his whole time to sanitary work. They are strongly of opinion that this arrangement should be maintained in future and they further think it desirable that the certificates granted by the sanitary officer should state that the candidates have had sufficient opportunities of acquiring a knowledge of the working of the public health laws in relation to a civil (as distinguished from a military) population of at least 30,000.

The following army corps, districts, or commands have been recognised by the Council, viz.: Aldershot, Salisbury Plain, Southern and Western Districts, Dublin and Cork Districts, Chatham, Home, and Eastern Districts, North-Eastern and North-Western Districts, Scottish District, and Gibraltar.

Sir JOHN BATTY TUKE wished to enter his protest against the introduction of such important reports as this at the fag end of the session. There was, he must admit, considerable jealousy with reference to the Public Health Committee because it had been whittling down the conditions under which the Council started some years ago. He had not had time to look at what this particular report meant and it might mean a great deal more than appeared on the surface.

Dr. NORMAN MOORE: We should consider this report very thoroughly.

Dr. BRUCE: Are you against it going on the minutes? Do you not think it would be better to consider it when it has been placed on the minutes?

Mr. BROWN: Withdraw it and bring it up next session.

Dr. MCVAIL: Any debate on it should take place before it is entered on the minutes. If it is to go back it should go back without being put on the minutes.

Dr. MACALISTER: I think it should go on the minutes. The letter from the War Office is dated Nov. 26 h, so there has not been much time lost in getting it through. As to the substance, I do not see that there is any reason why the report should not go on the minutes

On a division the motion to receive the report and to enter it on the minutes was carried, 18 voting for it.

Dr. BRUCE then asked the Council to approve of the report.

Sir JOHN BATTY TUKE desired to know what the Council's responsibility would be under it. He said he had always noticed that Government communications came in at a time when they must be shoved through, but he saw no reason why if the Bombay command was recognised the Madras and Bengal commands should not also be recognised. He wanted to have some reasons for his vote in regard to the Bombay command and he had none.

Dr. WINDLE moved that consideration of the motion should be postponed. He did not think matters should be rushed through at the last moment and this one could well stand over until the next meeting of the Council.

Dr. NORMAN MOORE had no hostility to the report but he quite agreed that there was something in it which required great consideration and one consideration was the precedent of Gibraltar, for when they came to other parts of India there would, if the report was adopted, be the precedent of Bombay. He thought the Council ought to be quite sure that the training for an Indian command was equivalent to the training required of a man who was to hold a public health appointment in England. If it were so he should support the report; if not he should not vote for it.

Dr. MCVAIL considered it unfair to the War Office to say that its letter was sent out only on Nov. 26th, for it actually, though in an informal form, had been sent on the 6th. While it looked very sudden on coming before the Council at the last moment the Council was partly to blame for that because of the manner in which arrangements were made to hold meetings of committees. He must support the application made by the War Office; he did not see how they could refuse it seeing that they had already recognised Gibraltar. If they were not on the down grade in respect to the Bombay command application, they were expanding; and Mr. Power had told the committee that if the application was granted there would follow applications from the India command and from the navy. He would vote for the adoption of the report.

Dr. BENNETT considered that it would be very undesirable to postpone this matter.

On a vote Dr. Windle's motion for postponement was rejected by 13 to 10.

Dr. MACALISTER thought that instead of adopting the report it would be better to pass this motion:—

That Bombay be added to the list of recognised military districts, that the report of the Public Health Committee be communicated to the Secretary for War, and that his attention be specially called to the last paragraph of the report.

Dr. BRUCE made no objection and Dr. MACALISTER'S proposal, seconded by Dr. NORMAN MOORE, was agreed to.

Final Examinations of the Scottish Universities.

Dr. MACALISTER moved:—

That the Executive Committee be requested to arrange at its meeting in February for the inspection of the final examinations of the Scottish Universities next year.

He remarked that it would take some care to find an inspector so capable and much appreciated as Sir George Duffey had been and he thought the Executive Committee should have some time in which to look around before it made an appointment.

Dr. BRUCE seconded the motion which was at once agreed to.

The Apothecaries' Hall of Ireland.

On the motion of Dr. MACALISTER, supported by Sir J. W. MOORE, it was resolved:—

That the Executive Committee be requested to arrange for the appointment of a visitor or inspector for the examination of the Apothecaries' Hall, Dublin, and that the inspection take place from time to time as the President directs.

Dr. MACALISTER next called attention to a communication from the Apothecaries' Hall, Dublin, which showed that:—

The governor and court of the Apothecaries' Hall of Ireland at their meeting held on Oct. 9th adopted the following resolution: They are unanimously of opinion that the time has now come when they should be relieved from the heavy burthen entailed by the travelling expenses of the examiners in surgery. They therefore respectfully request the Medical Council to take this matter into consideration.

He suggested that the reply should be to the effect that under the Medical Act, 1866, the Council had no power to pay the expenses of an examiner.

This was agreed to.

Report of Students' Registration Committee.

Sir HUGH BEEVOR submitted a report from the Students' Registration Committee showing how certain applications for exceptional registration as students or for the antedating of the commencement of professional study had been dealt with, and recommending that the Swansea Technical College (day classes) should be added to the list of recognised institutions approved by the Council.

The report was adopted.

A Vote of Thanks.

Sir HUGH BEEVOR, seconded by Dr. NORMAN MOORE, moved:—

That the thanks of the Council be given to Dr. Windle and to Professor J. Campbell Brown for their visiting all the first medical

examinations of the licensing corporations of the United Kingdom and reporting upon them individually and collectively.

The motion was passed and the PRESIDENT wished personally from the chair to thank the two gentlemen named for their great services and for having given the Council so admirable a summary of the whole subject of the visitation of the first medical examinations.

Annual Returns.

On the motion of Mr. BRYANT, seconded by Sir CHARLES BALL, the following report was received and entered on the minutes and the recommendation in the last paragraph of it was adopted :—

The Executive Committee having considered a return showing the answers of the licensing authorities in regard to the practicability of the proposed changes in the presentation of the information laid before the Council in the annual tables, obtained pursuant to the following resolution of the General Council adopted on May 23rd, 1903 :—

That the report of the Examination Committee upon the desirability of obtaining additional information from the various licensing bodies for use in the preparation of the Annual Table (a) showing results of professional examinations, which was received by the Council and entered on the minutes and appears as Appendix XXII. of the volume of minutes for 1902, be referred to the various licensing bodies and that they be requested to inform the Council whether it is practicable to give the information in the form suggested in Table I. of that report.

RETURN.

Answers received from the licensing bodies in response to a request for information as to whether it is practicable to give the information in the Annual Table (a) in the form suggested in the Examination Committee's report.

Name of body.	Table I., showing results of examinations according to subjects for qualifications primarily admitting to Register.	Table II., showing number of repeated rejections.
R. Coll. Phys. Lond.	No serious difficulty.	Time and labour required would cause considerable inconvenience.
R. Coll. Surg. Eng.	No objection.	Would involve too great expenditure of time and labour.
Apoth. Soc. Lond.	Practicable.	—
Univ. Oxford.	No particular difficulty.	—
Univ. Camb.	No (except in certain groups of subjects).	—
Univ. Durh.	Practicable.	—
Univ. Lond.	No difficulty.	—
Victoria Univ.	No objection.	—
Univ. Birm.	No difficulty.	—
Scottish Conjoint Board.	Can supply the information if desired.	—
R. Coll. Surg. Edin.	Can easily supply.	Table I. will show.
Univ. Edin.	Practicable.	—
Univ. Glasg.	Practicable, but modification suggested.	Form suggested for this.
Univ. Aberd.	Ditto.	—
Univ. St. And.	Practicable.	—
Irish Conjoint Board (answering also for both Colleges).	Will be happy to comply.	At present impossible.
Univ. Dubl.	Practicable.	—
R. Univ. Irel.	Not possible. Passes in separate subjects not awarded.	—

Resolved: That this return be remitted to the Examination Committee for consideration.

The Examination Committee, having carefully considered the replies from the various licensing bodies, find :—

I. That with the exception of the University of Cambridge and the Royal University of Ireland all the licensing bodies are prepared to give the information as to the results of professional examinations for qualifications primarily admitting to the Register in the form of Table I. suggested by the Examination Committee. The difficulty with both these Universities is identical—namely that they do not recognise the passing in any one of the subjects forming a group for purposes of examination unless the candidate passes in all the others at the same time—and consequently the information given as to passes and rejections applies to all the subjects grouped together for an examination. As will be seen by the footnote appended to the suggested table this difficulty has been provided for. For example, at the final examinations a candidate may obtain good marks in medicine but low ones in surgery and midwifery; he is therefore rejected for the entire examination and has to present himself again for examination in medicine as well as in the subjects in which he was deficient. The committee therefore consider that he should appear as a rejection in the separate columns for the subjects medicine, surgery, and midwifery. Acting upon this principle there will be no difficulty in preparing the table from information received from these Universities in form hitherto adopted.

II. That two of the licensing bodies (the Universities of Glasgow and Aberdeen) desire to record the passes and rejections in botany and zoology separately and not combined under the general heading of biology.

III. That the replies received indicate that it is practically impossible to obtain the suggested information as to repeated rejections. This the committee regret as they consider the information, if obtainable, would be distinctly valuable.

The committee therefore recommend that for the future the annual returns showing results of professional examinations for qualifications registrable under the Medical Act, 1886, should appear in the form suggested in their previous report, with the addition to Table I. of columns for the subjects botany and zoology.

Mr. BROWN, on the ground that it was impossible at the end of the session to get the full opinion of the Council, with the consent of his intended seconder, Mr. JACKSON, withdrew for the present the following motion, of which he had given notice :—

That copies of the returns which have been officially furnished to the Council relating to the competitive examinations for vacancies in the department of the Royal Navy and for commissions in the medical staff of His Majesty's Army and in the Indian Medical Service, held in January, May, July, and August, 1903, be sent to the Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, and the Royal Colleges of Physicians and Surgeons in Ireland, and that their attention be directed to the large percentage of rejections at the examinations referred to of candidates who held the diplomas of the Conjoint Boards of Scotland and Ireland.

End of the Session.

Mr. BRYANT proposed that now that the whole business was disposed of they should express to the President their warm thanks for the kind and able way in which he had conducted them through an anxious session. The work, he said, had gone pleasantly and with less difficulty than usual.

Sir J. W. MOORE, as the junior member of the Council, seconded the proposal.

The PRESIDENT having acknowledged the compliment,

The Council rose till May, 1904.

EPSOM COLLEGE.

AN extraordinary general meeting of the governors of Epsom College was held at 37, Soho-square, London, on Nov. 26th, the President of the College, Lord ROSEBERY, being in the chair.

The Treasurer, Dr. CONSTANTINE HOLMAN, proposed the following motion :—

That in accordance with the powers given under Section 12 of the Royal Medical Benevolent College Act of 1894 the name of the college shall henceforward be "Epsom College" in lieu of "The Royal Medical Benevolent College," and that in documents issued from the office in London the following words, so far as is practicable, be added immediately after the title: "Established in 1855 as a public school with a Royal medical foundation."

He said that he regretted the absence of the chairman of the council of the college, Sir Joseph Fayrer. In his (Dr. Holman's) opinion the proposed change of name would benefit to an enormous extent both the medical profession and the college. He explained that the college was founded for all classes but offered special advantages to the sons of medical men. Provision was made for 50 foundation scholars elected from the necessitous orphans or sons of medical men. There were 50 pensioners chosen from the most necessitous cases in the medical profession as vacancies occurred. There was a curious insistence on the part of the public and also on the part of some members of the medical profession to regard Epsom College as a class school. Mr. Propert who founded the college never intended it to be a class school or a charity school, and in support of this contention he read a letter from Mr. L. Propert, the son of the founder. The word "benevolent" in the title "Royal Medical Benevolent College" was used by the founder to find the money for building the college and the time had now arrived when the word might very well be dropped. In 1894 some doubt was thrown upon the power of the council to admit all classes to the college. Therefore an amending Act was procured from Parliament to declare the college open to all and also to give the council power to change the name. A pledge, however, was given that in choosing another name the identity of the institution should not be obscured. It

had been found that it was the earnest wish of all that the name should be changed and that boys had not been sent to the college simply because of the title containing the word "benevolent." The council therefore proposed the change indicated in the motion he proposed. Marlborough College and Wellington College had large foundations and he did not see why Epsom College should not have the same. The institution was to be a public school with a Royal medical foundation and by using the word "foundation" the college was safeguarded from the imputation of it being a charity. He could see within a measurable distance a very large portion of the sum necessary for this purpose and under the title now proposed the charitable work of the institution would be rendered secure.

Mr. HENRY MORRIS, treasurer of the old Epsomian Club, in seconding the motion, said that he did so because he was an old Epsomian and there was not a single old Epsomian who did not gladly hail the change of title. There was no doubt that there had been among the laity and among a large number of the medical profession an idea that Epsom College was a charity school. It had been a great satisfaction to him to hear read out the letter of Mr. L. Propert, the son of the founder. Boys from Epsom College were made to feel that the college was considered to be a charity because they were asked on saying where they were educated whether their father was still alive or whether he had broken down in health. Questions of that kind could only mean one thing and the imputation was naturally resented. There was no more reason why Epsom College should be called "benevolent" than Marlborough College or other public schools which had foundation scholars. The word "benevolent" applied to an institution was meaningless, or if it did mean anything it implied something objectionable. The word "benevolent" was an abomination as applied to an institution for it inferred nothing but the idea of charity, implying assistance given to people who were absolutely necessitous. It was undesirable to keep this word "benevolent" because it did not fulfil the intentions of the founder and of those who assisted him in the establishment of Epsom College. They need not fear that the funds of the institution would suffer. It was not to be believed that people gave money to any institution because it was called "benevolent"; financial assistance was forthcoming to an institution when it made good use of the money it had.

Four letters from governors of the institution were then read, two being in favour of the proposed change.

The motion was then submitted to those present by Lord ROSEBERY and carried *nemine contradicente*.

Sir WILLIAM S CHURCH, Bart., K.C.B., President of the Royal College of Physicians of London, in moving a vote of thanks to Lord Rosebery for taking the chair, said that they thanked him for coming to that meeting and acting as chairman. They also thanked him as a neighbour, for not only did he reside in close propinquity to Epsom College but he was also a neighbour in a much fuller and nobler sense, placing his help freely at the disposal of the institution whenever it was required.

Mr. CHRISTOPHER HEATH seconded the motion which was put to the meeting by Dr. HOLMAN and carried with acclamation.

Lord ROSEBERY, in reply, said: I am much obliged for the cordiality with which this vote has been received. Long before I was connected with Epsom College I felt deeply that this question of the name handicapped very severely the energy and prosperity of the college. In the first place the title "The Royal Medical Benevolent College" has the fatal defect of being much too long. There is no institution in the world in my judgment that could thrive under so lengthy a denomination as that. It says wonders, it says marvels, for those who have been connected with the management of this college, whether as treasurers, governors, or as headmasters, that they should have made the college what it is under the great disadvantage of the name. The other disadvantage under which the late title laboured has been called attention to—namely, the inclusion of the meaningless but distasteful word "benevolent." When you come to think of it, there is no reason in the world why Eton, which, in my opinion, holds pride of place among public schools and which I put at the head of all educational establishments, not perhaps in respect of education but from certain other points of view, should not have applied to it the word "benevolent." I hope there are no Harrovians or members of rival schools here to tear me in pieces for putting Eton first but we all have these childish prejudices. There was no reason why Eton should have omitted the words and title we have just discarded. There was no reason why the word "benevolent" should not have been given to Eton, because when Eton was founded by Henry VI. with 70 foundation scholars it was a Royal Benevolent College, and I cannot conceive that anybody will think that Eton College would prosper so well if it were suddenly to add the additional epithets of "royal" and "benevolent" to its name. I say this because I notice in one of the letters of objection sent by one of the governors a lingering regard is expressed for the word "royal." The discarding of the word "royal" does not mean that we are ungrateful or unmindful of the constant proof of the interest of past and present members of the Royal Family in our institution. We are justly proud of it, but so great is the interest that the Royal Family has developed in all public institutions under the reign of our late gracious Queen that almost every institution that does any munificent work would be justified in claiming or retaining the word "royal" for having received some mark of royal interest. That I regard as an immense credit to our Royal Family. Although that be so, would it not be thought absurd if Eton College were suddenly, in memory of the various bounties which it has received from the Kings of England beginning with Henry VI., to say that the word "royal" would be a flattering addition to the title it already enjoys? You can hardly fancy "The Royal College of Eton" and it is even more difficult to imagine "The Royal Benevolent College of Eton." I think that that simple illustration goes to the root of the whole matter and it shows that we are right in discarding these superfluous epithets and adopting the simplest and most direct name, which is the name, too, by which the school has long been popularly known. I believe in my heart of heart that this will be a memorable date in the history of Epsom College. I believe the change in the name means a new start, for we have dropped the encumbrances which I think weighed us down, and I who know fairly well as a neighbour the admirable character of the school and of the lads who are trained in it venture in the most sanguine spirit to prophesy that to-day will mark a new era of prosperity in the history of Epsom College.

The meeting then terminated.

THE MEDICAL SUPERVISION OF PUBLIC EDUCATION.

Now that recent legislation has handed over to local councils elected for general purposes of local government the duty of controlling and of directing all public education throughout England and Wales innovations and changes of method are to be expected in various directions, and important questions have arisen and from time to time will have to be decided with regard to the part to be played by the medical profession in the country's education and under the new *régime*. The principles which are likely to be discussed may conveniently be referred to in the consideration of a concrete question which will be ventilated in many places with reference to the medical men who under the school boards, that have passed away, performed such duties as were assigned to them upon their appointment, duties not necessarily alike in different localities. The question is whether school medical officers are to be appointed as to a distinct post or whether the medical officer of health is to combine with his duties as such those of medical officer to the schools controlled by the local authority employing him. In some instances already the medical officer of health has been appointed and the medical man employed by the school board has been discarded. This has been done at Ilford, to take an example, and there, as we gather from reports in the local newspapers, the appointment of the medical officer of health, Mr. C. F. Stovin, to act in the dual capacity, with the consequent displacement of Mr. W. H. Best, medical adviser to the late school board, was urged with considerable vigour by the former gentleman upon grounds of public expediency and of the proper performance of the duties required. His view was

not adopted without prolonged argument by the Ilford urban district council and similar discussions have taken place, and, no doubt, will take place, elsewhere. There are many elements of controversy in a subject involving the consideration of "vested interests," of economy, and, most important of all, of efficiency. Before, however, the question of efficiency can be determined or even submitted to argument it is necessary to arrive at a conclusion with reference to another. Previously to deciding by whom the duties of medical officer to a school authority may best be performed that authority must more or less definitely make up its collective mind what those duties are to be, not perhaps with any delimitation of their details but with some distinctness as to their direction and scope. To sum the matter up at the outset, the question is whether the school medical officer is to be mainly a medical officer of health responsible as such for the school, or whether he is to be this and a great deal more. If the duties imposed upon him are to be limited to such as fall within the normal jurisdiction of the medical officer of health there can be no reason of general application why that official should not be appointed or why he should not ably carry out his work and there are obvious reasons which point to him as the right man for the post. It will be more convenient to have one authority to advise the council and to carry necessary measures into effect, uniformity and promptitude of action will be better assured, and the gentleman appointed will have the advantage of experience with regard to an important and preponderating portion of the task assigned to him. The duties of a school medical officer are not, however, in all respects even similar to those performed by medical officers of health acting in that capacity. They must include some, and they may include many, matters with which a medical officer of health has nothing to do. If the latter is the case and the scope of the school medical officer's duties is enlarged the man undertaking both posts may find that there is more to be done than there is time to do thoroughly and that duties have to be attended to for which special study and previous experience would be desirable qualifications.

The Education Acts do not specifically require the appointment of, and assign duties to, medical officers. The Elementary Education Act, 1870, section 35, empowered a school board to appoint necessary officers, and under this section the School Board for London and the school boards for some other large centres selected medical men to perform during the pleasure of the board those duties for which a medical man was necessary—such as the remedying of sanitary defects in schools, the dealing with outbreaks of infectious disease, and the examination of teachers and candidates for school appointments as to their health and of children believed to be mentally or physically defective. The employment of medical practitioners for these purposes was required directly or indirectly by various Acts of Parliament dealing with education. Their further employment for general purposes of school and educational hygiene was a natural development of the educational movement in the hands of boards zealous in the cause of education which found that the advice and coöperation of a medical practitioner making a special study of educational requirements were of considerable practical advantage to them. Examples of school boards employing medical officers in this manner are to be found in London, Bradford, Halifax, Manchester, Newcastle, Salford, and elsewhere, but in order to make the study of what may thus be done complete attention must necessarily be directed to the practice prevailing in the United States of America and in various continental countries.

If we assume that it is desired by any educational authority that its medical officer shall be a specialist in school hygiene, charged with the care of its schools and with the duty of making them, so far as his skill and powers permit, efficient educational agents, we shall then find that there are many arguments against the school medical officer being at the same time medical officer of health. The question whether he will have time for the proper fulfilment of the two offices will depend principally on the size and importance of his district and of the schools therein. In small places and outlying districts there may be no difficulty upon this score and the medical officer of health may be on account of his attainments and for other reasons the best man obtainable. In large and populous districts, however, it will be otherwise, and apart from the question of time there are important points to be considered. The medical officer of health and the medical officer of a school authority have to regard the school from different points of view, one of them being concerned with the public health and the other with the health of the school and with the cause of education. For example, where infectious disease has broken out the former by habit of thought and the natural impulse to be on the safe side with regard to the public health may be disposed to close the school at once. The other, having as his first care the progress of education, will rather be impelled to do his utmost to keep the school open, although his desire not to check the education of the children who are in health will cause him to eliminate carefully those likely to prove centres of infection. If through the appointment of two medical men to fill the two offices differences of opinion arise at the time of an outbreak of infectious disease as to the steps to be taken, each can maintain his own point of view and the local authority may have to take the responsibility of deciding between them, but at all events the educational side of the question will not be lost sight of by the one official and the duty of protecting the public health will be enforced by the vigilance of the other. It has already been suggested that such duties as the examination of children who require special educational treatment do not form part of the ordinary functions of a medical officer of health and that the best performance of these duties may most effectually be insured by the employment of one who through inclination and previous training has become a specialist in such matters. The gentleman selected, whoever he may be, and whatever the number of children under his charge, if he is to perform these necessary duties with the utmost efficiency, will have to devote himself to them with constant vigilance. If he is expected to do more, then beyond the exercise of his skill in the detection of defective vision, hearing, and intelligence he will find himself called upon to pronounce opinions upon a variety of other matters, such as the cleanliness, lighting, and ventilation of buildings, the preservation of the health of children with a view to the carrying on of their education, their physical training, and their susceptibility to mental and bodily fatigue, with all the details relating to such subjects. In these circumstances the duties which are akin to those of a medical officer of health will occupy comparatively but a small part of his time and attention, and the others, which are those of a medical expert in education, will demand the exercise of skill, sympathy, and acquired knowledge of a different but no less important description.

It is for this reason that we would urge educational authorities to decide in some measure the nature of the functions which they will expect their medical officer to perform before they make their selection and before they decide to dispense with the aid of those who may have obtained experience and evinced zeal in the performance of those very duties. In case the mere idea of a medical man being employed for school purposes may seem to some a step towards socialism and towards relieving the parent of the care of the health of his offspring it may be pointed out that the school medical officer is for the benefit of the school, not of the child, and in case others who are medical men attending school children may be apprehensive of a tendency to oust them or to discount the value of their services it may be as well to quote in further explanation the concluding paragraph of the annual report recently issued by the medical officer of the London School Board, Dr. James Kerr, where he says: "The function of the school doctor in relation to children in the schools is often mistaken even by medical men who should know better. It is no part of his duty to prescribe for or treat any individual case. His work is preventive and in individual cases only applies to matters involving educational questions. He can call attention to the need of glasses but has nothing to do with prescribing them. He may notice the presence of adenoids but takes no part in their removal. On the other hand, his work should extend far beyond mere investigation of the sanitary state of buildings or the excluding of unhealthy or diseased children. The methods of education, requirements of physical exercise, avoidance, particularly in the very young, of overstrain from prolonged fatigue or from improper tasks are all matters in which improvement can only be obtained by the school doctor acting, not as an authority to shut or close, to disturb or interrupt the proper work of the school, but as a counsellor and adviser with a knowledge of school routine and of the requirements for health to assist and collaborate with the teacher and administrator, and it is with this in mind that he should enter any school."

Looking Back.

FROM

THE LANCET, *SATURDAY*, DEC. 3, 1825.

INJUNCTION DISSOLVED.

TRIUMPH OF THE MEDICAL PRESS.

Court of Chancery, Monday, Nov. 28, 1825.

THE LANCET.

Mr. HORNE said he had a motion to make in the case of "Abernethy v. Hutchinson," which he mentioned at the last seal, to dissolve the injunction granted against the defendant, restraining him from continuing to publish, or sell, Mr. Abernethy's Lectures in THE LANCET. At the last seal, the learned Gentleman understood that the Solicitor-General, or some other gentleman was to appear for the plaintiff, to oppose the present motion, but he was *now given to understand, that it was not intended to be opposed*, therefore he moved for the dissolution of the injunction, and submitted that he was entitled to his order.

LORD CHANCELLOR: I dissolve the injunction.

We feel confident that this result will be hailed with satisfaction by thousands of our readers, as *the triumph of principle* in a legal struggle, which has been declared by the highest authority in the realm to be one of no ordinary importance, involving, as it did, the rights of Lecturers properly understood on the one hand, and the interests, not so much of a publication, which the Lord Chancellor characterised as one of great utility, as of the whole Medical Profession, and of the public at large on the other.

MEDICINE AND THE LAW.

Blackmail by a Sanitary Inspector.

A SANITARY inspector employed by the city of Westminster has been sentenced to 12 months' hard labour at the Old Bailey for attempting to levy blackmail upon a French restaurant keeper on whose premises he had apparently found certain tinned food which was subsequently condemned and who was thus to some extent in his power. The Frenchman had the good sense to communicate at once with a member of the city council and a detective, by concealing himself and by arresting the blackmailer at the moment when he obtained possession of the bribe which he had tried to extort, was able to prove the case up to the hilt. Blackmail, however, is an offence which it is not always easy to bring home to the culprit even where the intended victim resists and the penalty imposed is by no means too severe for the serious nature of the crime. The occurrence of this incident raises the question whether sanitary inspectors are sufficiently highly paid to secure a class of men who will be superior to the temptations to which their position exposes them. British police and minor officials are probably less corrupt than are those of many foreign nations, but a few black sheep easily gain a bad name for any calling and their example is liable to infect their fellows. Careful selection and supervision, with the prompt conviction and severe punishment of offenders, are necessary in cases where powers such as those exercised by sanitary inspectors are given.

An Extraordinary Medical Impostor.

Convicted under the name of Hubert Part for bigamy a man named John Thompson Cubbin had his true name and history disclosed by the police at Liverpool assizes before receiving from Mr. Justice Ridley a sentence of five years' penal servitude. Born at Chorley in humble circumstances and having been at one time a timekeeper in a colliery, he had for some time pursued a career characterised by fraud and lust, representing himself in many places as a medical man, of which offence he had been convicted, as well as for obtaining jewellery and money by false pretences. He had been through at least one ceremony of marriage since marrying a wife in 1898 and one of the crimes for which he was indicted and not tried was that of rape upon a woman whom he induced to believe that he was her husband, thus causing her to spend a night with him. A considerable part of his recent history was connected with this incident. He had met and made the acquaintance of a medical man named Herbert Part, who was proceeding abroad very soon after a marriage the details of which have not been published. Having obtained knowledge of Mr. Herbert Part's private affairs and knowing that he would be likely to remain abroad Cubbin personated him and being enabled thus to use a name that was on the Medical Register was protected in carrying on the illicit medical practice which seemed to exercise such an attraction for him. As Herbert or Hubert Part, for he used both names, he went through a ceremony of marriage with a girl named Alice Ford and through her meeting the wife of the real Part was charged with bigamy. In the succeeding investigations his true character and antecedents were revealed and it was found that before the ceremony with Alice Ford he had been married not to Ellen Mary Part but to another lady. The ease with which medical men can be personated should make them cautious in dealing with plausible strangers claiming to be members of the same profession. The story of the wife who, even after a married life of only a few days' duration and a parting of three or four years, was deceived by a stranger into accepting him as her husband is an extraordinary one. Such an occurrence renders many instances of mistaken identity such as those connected with the late Tichborne claimant easier to understand and also shows that the identification of accused persons by witnesses at criminal trials may at times be entirely unfit to be relied upon.

The Liability of a Nursing Association.

An action of considerable interest to the medical profession and to associations for the organisation and supply of nurses was tried by Mr. Justice Jelf and a special jury at the recent assizes held at Manchester. The plaintiff had undergone an operation for the removal of a kidney. Dr. G. J. Robertson of Oldham performed it with the assistance of two other medical men and two nurses supplied by the Oldham Nursing Association were present. After the operation had been completed and after the patient had been placed in her bed when recovering from the anæsthetic she cried out that her leg was being burnt. A hot-water bottle was then removed by one of the nurses and Dr. Robertson afterwards dressed the leg which was very seriously injured, so that the patient was at one time in a critical condition. Dr. Robertson spoke to the nurses as to what had taken place and they appear to have met his observations with indignant denial and the retort that the blame was with him. In consequence of what passed he immediately removed them and replaced them with other nurses from Manchester. Upon the issue of fact as to whether the hot-water bottle or bottles were used upon the operating table or were placed in the bed after the patient was in the hands of the nurses there was a direct conflict of evidence. Upon this issue the jury found that the injury to the plaintiff was caused by the negligence of the nurses. A further defence was raised that the relations of master and servant or employer and employed did not exist between the Nursing Association and the nurses sent out by it so as to render the association liable for their negligence, and it was urged that the association was merely an agency for the benefit of the nurses, providing them with board and lodging and making arrangements for their employment. On the other hand, correspondence with the association was put in to show that it contracted for the services of the nurses with those who required their attendance upon patients, paying them less than it received for their services and reserving to itself the right to recall them at any time. On this issue the jury found that the defendant association undertook to nurse the plaintiff through the agency of its nurses. A stay of execution pending an appeal upon this latter point was asked for and refused, but no doubt the question of the liability of associations of this kind will be argued again before long in the Court of Appeal. The medical men whose credit was at stake in this trial to which they were not parties are to be congratulated upon the result of it. The damages were assessed at £300.

Inaccurately Worded Legacies.

Recourse was had recently to the Chancery Division in order to ascertain the meaning of a testatrix who had left

a legacy of £500 to the "Royal Home for Incurables, Streatham, S.W." She had subscribed during her lifetime to the "British Home and Hospital for Incurables" at Streatham and also to the "Royal Hospital for Incurables" at Putney. In her diary she had described the former as the British Home for Incurables and the latter as the Royal Home for Incurables and there was evidence as to her subscriptions of varying amounts to the two institutions which had to be considered in order to ascertain her probable wishes. The executors had paid the amount named to the Royal Hospital for Incurables at Putney, but Mr. Justice Kekewich was able to come to the conclusion from the facts laid before him that the British Home and Hospital for Incurables at Streatham was intended, in which, taking the indication of locality into consideration, he was pretty clearly right and the legacy will now go to that institution. It is a matter of regret that litigation should be necessary upon such a subject. In this particular case and in others the circumstances of necessary haste in which wills sometimes have to be made may account for errors and excuse them. Solicitors, however, who have any leisure to draft a will properly should take the opportunity to verify all names of charities submitted to them as objects of the testator's benevolence. With their accuracy in other matters we are not concerned. Hospitals and benevolent institutions of all kinds are properly described in the "Annual Charities Register and Digest" (published for the Charity Organisation Society by Messrs. Longmans and Co.) and in other accessible works of reference. Testators are known to be inaccurate, almost unaccountably so; they have at times described their relatives by wrong or by wrongly combined names, they have called their first cousins once removed second cousins and their step-children their children. It may sometimes be possible and desirable for the secretary to a charitable institution to whom a subscription is paid which is wrongly addressed, or accompanied by a letter describing the charity under a wrong name, to call attention to the error without giving offence.

A Dead Body as a Bequest for Anatomical Purposes.

There is no "property" or right of ownership in a human body and no man consequently can own the dead body of his relative or of any other person in such a way as to be able to sell it or to leave it by his will to anyone so as to make it that person's property. He cannot even so dispose of his own remains by any bargain or will made during his life but when he is dead it will be the duty of his executors to afford his body such burial as is suitable to his estate. There is an apparent exception to this created by the Anatomy Act (2 & 3 William IV., c. 75). The seventh section of this statute makes it lawful for an executor or any other person, not an undertaker, having lawful possession of a dead body to permit it to undergo anatomical examination unless either the deceased has in his lifetime desired otherwise or his surviving relatives object, and by the eighth section, "if any person either in writing at any time during his life, or verbally in the presence of two or more witnesses during the illness whereof he died, shall direct that his body after death shall be examined anatomically, or shall nominate any party ..... to make such an examination ..... then the party having lawful possession of the dead body shall direct such examination to be made" unless a husband or wife or other near relative shall object. Recently at an inquest in London a document left by the deceased was read which expressed his desire that his body should be handed to the authorities at St. George's Hospital for dissection in the medical school and the coroner made the observation that the gift was invalid and that the deceased could not leave his body as he wished. The section quoted was apparently overlooked by the coroner and the man who said in his letter expressing his wish, "I have the right to dispose of my body," was right so far as the particular mode of disposition selected by him was concerned. There does not appear to be any recorded case where anyone to whom a body should have come for anatomical purposes under Section 8 ever sought to enforce that right against an unwilling executor, but the wording of the section appears to leave the executor no choice in the matter so long as the relatives do not object. The phraseology used would apparently include post-mortem examinations made for the purpose of elucidating the cause of death (but not ordered by a coroner) as well as the handing over of a body for dissection in a medical school.

LEEDS MEDICAL SCHOOL: A SMOKING CONCERT.

A SMOKING concert was recently given by the Leeds Medical School under the chairmanship of Mr. W. H. Brown when a programme of 17 items, all songs but four, was successfully carried out. The bill of the evening was very happily drawn by Mr. Fred. Reynolds, as may be seen by our reproduction of the principal figure upon it.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 7950 births and 5092 deaths were registered during the week ending Nov. 28th. The annual rate of mortality in these towns, which had been 16·2, 17·9, and 17·4 per 1000 in the three preceding weeks, increased again last week to 17·6 per 1000. In London the death-rate was 17·4 per 1000, while in the 75 other large towns it averaged 17·7 per 1000. The lowest death-rates in these towns last week were 8·0 in Hornsey, 8·1 in Wallasey, 8·7 in Hastings, 9·0 in Stockton-on-Tees, 9·3 in Waltham-tow, 9·7 in Leyton, 10·3 in Croydon, and 10·6 in Smethwick; the highest rates were 23·0 in Coventry, 23·2 in Bootle, 23·6 in Warrington, 23·7 in Preston, 24·7 in York, 25·1 in Swansea, 26·2 in Burnley, and 29·6 in Sunderland. The 5092 deaths in these towns last week included 430 which were referred to the principal infectious diseases, against 419, 432, and 436 in the three preceding weeks; of these 430 deaths, 114 resulted from measles, 99 from diphtheria, 92 from whooping-cough, 49 from diphtheria, 42 from "fever" (principally enteric), 30 from scarlet fever, and four from small-pox. No death from any of these diseases was registered last week in Croydon, Hornsey, Hastings, Bournemouth, Norwich, Devonport, Handsworth, Smethwick, Grimsby, Wallasey, Huddersfield, Middlesbrough, Stockton-on-Tees, or Tynemouth; while the highest death-rates from the principal infectious diseases occurred in Willesden,

Walsall, Bootle, Warrington, Bury, Preston, York, Sunderland, and Rhondda. The greatest proportional mortality from measles occurred in Willesden, Ipswich, West Bromwich, Warrington, Preston, York, and Sunderland; from whooping-cough in Walsall, Bootle, Warrington, and York; and from diarrhœa in Preston and York. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. Of the four fatal cases of small-pox registered in these eight towns last week one belonged to London, one to Coventry, one to Newcastle-on-Tyne, and one to Tynemouth. The number of small-pox patients under treatment in the Metropolitan Asylums hospitals, which had been 43, 51, and 47 at the end of the three preceding weeks, had further declined to 40 at the end of last week; five new cases were admitted during the week, against five, 16, and five in the three preceding weeks. There were 1770 scarlet fever cases in these hospitals and in the London Fever Hospital on Saturday last, Nov. 28th, against 1854, 1824, and 1833 on the three preceding Saturdays; 157 new cases were admitted during last week, against 224, 185, and 191 in the three preceding weeks. The deaths referred to pneumonia and diseases of the respiratory system in London, which had been 271, 339, and 325 in the three preceding weeks, rose again last week to 399 and were 18 above the number in the corresponding period of last year. The causes of 57, or 1·1 per cent., of the deaths in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Leicester, Leeds, Hull, Newcastle-on-Tyne, and in 44 other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Grimsby, Nottingham, Liverpool, St. Helens, Preston, Barrow-in-Furness, Sheffield, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 15·8, 17·4, and 17·4 per 1000 in the three preceding weeks, further rose to 18·7 per 1000 during the week ending Nov. 28th and was 1·1 per 1000 in excess of the mean rate during the same period in the 76 large English towns. Among these Scotch towns the death-rates ranged from 9·3 in Perth and 11·6 in Aberdeen, to 20·8 in Glasgow and 22·7 in Paisley. The 611 deaths in these towns included 22 which were referred to diarrhœa, 17 to measles, nine to whooping-cough, five to diphtheria, four to "fever," three to small-pox, and two to scarlet fever. In all, 62 deaths resulted from these principal infectious diseases last week, against 53, 49, and 61 in the three preceding weeks. These 62 deaths were equal to an annual rate of 1·9 per 1000, which was 0·4 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of diarrhœa, which had been 20 in each of the two preceding weeks, increased last week to 22, of which 12 occurred in Glasgow, five in Edinburgh, two in Aberdeen, and two in Paisley. The deaths from measles, which had been 19, 10, and 13 in the three preceding weeks, rose again to 17 last week and were all registered in Glasgow. The fatal cases of whooping-cough, which had been four and seven in the two preceding weeks, further rose last week to nine, of which seven occurred in Glasgow. The deaths from diphtheria, which had been four and seven in the two preceding weeks, declined again to five last week and included two in Glasgow. The fatal cases of "fever," which had been ten and six in the two preceding weeks, further declined last week to four, of which three were recorded in Glasgow, where the three deaths from small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 107, 129, and 136 in the three preceding weeks, further rose last week to 148, and were 13 in excess of the number in the corresponding period of last year. The causes of 14, or more than 2 per cent., of the deaths registered in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin which had been 21·7, 20·9 and 24·5 per 1000 in the three preceding weeks, further rose to 24·8 per 1000 during the week ending Nov. 28th. During the past four weeks the death-rate has averaged 23·0 per 1000, the rates during the same period being 16·7 in London and 17·0 in Edinburgh. The 180 deaths of persons belonging to Dublin registered during the week under notice were slightly in excess of the number in the preceding week and included 11 which were referred to the principal infectious diseases, against two, seven, and nine in the three preceding weeks; of these, four resulted from "fever," three from whooping-cough, three from diarrhœa, and one from diphtheria, but not any from small-pox, measles, or scarlet fever. These 11 deaths were equal to an annual rate of 1·5 per 1000, the death-rates last week from the principal infectious diseases being 1·3 in London and 1·1 in Edinburgh. The fatal cases of "fever," which had been one, three, and one in the three preceding weeks, rose last week to four. The deaths from whooping-cough, which had been three and two in the two preceding weeks, rose again to three last week. The three fatal cases of diarrhœa showed a slight decline from the number in the preceding week. The 180 deaths in Dublin last week included 48 of children under one year of age and 47 of persons aged 60 years and upwards; the deaths of infants were 17 in excess of the number in the preceding week, while those of elderly persons showed a slight decline. One death from violence and four inquest cases were registered, and 54, or nearly one-third, of the deaths occurred in public institutions. The causes of ten, or nearly 6 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Fleet Surgeon Christopher Pearson has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in His Majesty's Fleet (dated Oct. 10th, 1903).

The undermentioned gentlemen have been appointed Surgeons in His Majesty's Fleet, viz:—Walter Perceval Yetts, Norman Sinclair Meiklejohn, Thomas Dixon Liddle, William Perceval Hingston, Guy Leslie Buckeridge, Arthur Henry Sims Richardson, Henry Woods, George Herbert Stephens Milln, Charles James Boucher, Reginald Hugh St. Bernard Ellis Hughes, Frederick Morton Vincent Smith, George Deleval Walsh, David Haddon Vickery, Palmer Devoy Ramsay, Walter Graham Moore Anderson, Arthur Robertson Davidson, Edward Bryan Kenny, James Ernest Johnston, James Campbell Bringan, Francis Jollie Gowans, John Shipsey, Lionel Coldbeck Esmonde Murphy, Frederick Cock, Evelyn Richard Townsend, Arthur Dillon Croker Cummins, Charles Murray Woods, Arthur Reginald Schofield, Thomas Walter Jeffery, Edward Postle Gwyn Causton, and Bertram Raleigh Bickford (dated Nov. 23rd, 1903).

The following appointments are notified:—Fleet Surgeon E. B. Townsend to the *Monmouth*. Staff Surgeons: J. D. Hughes to the *Pioneer* and W. R. M. Young to the *Venus*. Surgeons: J. Macdonald to the *Hibernia* for the *Maine* and A. D. Spalding to the *Jackal*.

ARMY MEDICAL STAFF.

Colonel J. D. Edge, C.B., Royal Army Medical Corps, to be Surgeon-General, vice G. J. H. Evatt, C.B., retired (dated Nov. 11th, 1903).

ARMY MEDICAL SERVICE.

Surgeon-General Thomas O'Farrell is placed on retired pay (dated Nov. 20th, 1903).

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. J. Morris to be Colonel, vice J. D. Edge (dated Nov. 11th, 1903). Lieutenant-Colonel H. Grier is placed on temporary half-pay on account of ill-health (dated Nov. 20th, 1903).

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion the East Lancashire Regiment: Surgeon-Lieutenant A. Foster resigns his commission (dated Nov. 28th, 1903). 1st Bucks: Surgeon-Captain J. Shaw resigns his commission (dated Nov. 28th, 1903). 1st Nottinghamshire (Robin Hood): Captain R. P. Shearer resigns his commission and is appointed Surgeon-Lieutenant (dated Nov. 28th, 1903). 1st Tower Hamlets: Surgeon-Lieutenant J. F. F. Parr to be Surgeon-Captain (dated Nov. 28th, 1903).

ROYAL ARMY MEDICAL CORPS (VOLUNTEERS).

The Edinburgh Company: Major D. Hepburn resigns his commission with permission to retain his rank and to wear

the prescribed uniform on retirement (dated Nov. 28th, 1903). The Glasgow Companies: Captain J. G. Graham resigns his commission (dated Nov. 28th, 1903).

DEATHS IN THE SERVICES.

Surgeon General Alfred James Dale, I.M.S. (retired), on Nov. 24th at his residence in Rosary Gardens, South Kensington, aged 73 years. He entered the service in 1853, was promoted surgeon in 1864, surgeon-major in 1873, brigade-surgeon in 1879, deputy surgeon-general in 1882, and retired with the rank of surgeon-general in 1886. He served in the Afghan War in 1879 with the Kuram Valley Field Force (medal).

Surgeon-Major Hamilton De Tatham, I.M.S. (retired), on Nov. 25th, in his sixty-first year. He entered the service in 1867 and was promoted surgeon-major in 1879. He served in the Abyssinian War in 1867–68 (medal).

Correspondence.

"Audi alteram partem."

BAYLISS *v.* COLERIDGE.

To the Editors of THE LANCET.

SIRS,—May we ask you to be good enough to give publicity in your columns to the following undertaking and apology which we have obtained from the publisher of "The Shambles of Science," a work intimately associated with the above action. We may state that the terms of Mr. Bell's undertaking have been complied with.

To Dr. W. M. Bayliss, "St. Cuthberts," West Heath-road, Hampstead, and to Messrs. Hempson, 35, King-street, Cheapside, E.C. (his Solicitors).

I, the undersigned Ernest Bell of 5, York-street, Covent Garden, London, W.C., the printer and publisher of a book entitled "The Shambles of Science," the authors of which are Lizzy Lind Af Hageby and Leisa K. Schartau, and which book contains therein certain matter libellous upon Dr. Bayliss hereby acknowledge that I have given instructions for the withdrawal from circulation of all copies of such book and hereby undertake that no further copies of such book shall be printed or published by me, that the circulation of such book shall cease, and that all copies in stock and withdrawn from circulation shall be handed over to Messrs. Hempson, Dr. Bayliss's solicitors, and I hereby express to Dr. Bayliss my sincere regret for having printed and published the book in question.

Dated, this 25th day of November, 1903.

Witness, HENRY RAYMENT. ERNEST BELL.

In the interests of truth and of science it is desirable that it should be publicly known that the circulation of the book has been suppressed.

We are, Sirs, yours obediently,

HEMPSON AND CO.,
Solicitors for Dr. W. M. Bayliss.

35, King-street, Cheapside, London, E.C., Nov. 28th, 1903.

RECURRENT OVARIAN CYSTOMA AND ABERRANT ACCESSORY OVARIAN STRUCTURES.

To the Editors of THE LANCET.

SIRS,—Mr. Roger Williams shows in THE LANCET of Nov. 28th (p. 1530) that "of 138 ovarian tumours from the Kelly clinic submitted to microscopical examination at the Johns Hopkins Hospital 11, or 8 per cent., were malignant." Greig Smith[1] quoted Shroeder as having 16·6 per cent. of malignant cases in 600 ovarian tumours and he also quoted Leopold as finding that 22·4 per cent. were malignant in 126 cases. Mr. Williams contrasts the 8 per cent., which he takes as the proportion of malignant disease in these cases, with "the great frequency of its occurrence after ovariotomy, which in Spencer Wells's large experience amounted to no less than 36 per cent." He obtains the 36 per cent. from a table of 1000 cases of ovariotomy[2] and a summary of the results[3] in Sir Spencer Wells's book on ovarian and uterine tumours. Of the 1000 cases of completed ovariotomy, 117 were reported as having died after recovering from the operation, but the cause of death was known only in 88, and in 32 of these cases death was due to cancer. This shows a malignancy of about 36 per cent. *in the 88 cases.* It does not seem to me, however, that it may be logically argued from this that the occurrence of malignant disease after ovariotomy "amounted to no less than 36 per cent." In addition to the 32 patients who died of cancer after convalescence was complete there were four who died with cancer immediately after their operations. Thus there is evidence of the occurrence of 36 cases of malignant disease in the 1000 and the figures seem to me only to warrant the assertion that at the time of publication malignant disease had developed in 36 cases or 3·6 per cent. of the whole. The comparison made by Mr. Williams is appropriate only if it can be shown that the incidence of malignancy in the 88 cases constitutes a fair sample of the results to be expected in the cases still alive at the date of publication. If this is so, malignant disease would develop in about 276 of the 768 cases which were not immediately fatal from the operations—a truly appalling result.

There are, however, reasons, which seem to me conclusive, indicating that the patients surviving a few years would not be so liable to malignant disease as those dying early. The 1000 cases were operated on between 1858 and 1880 and were published in 1882. Of the 36 patients who had or developed cancer four (Nos. 747, 155, 236, and 882) died on the sixth, twelfth, thirteenth, and fourteenth days respectively after their operations; one died after six weeks (No. 111); six more died within six months (Nos. 61, 63, 331, 433, 764, and 890); 13 more died within two years (Nos. 3, 151, 330, 397, 519, 545, 557, 605, 656, 712, 762, 802, and 977); another three died within three years (Nos. 696, 810, and 904); two died after about three years (Nos. 774 and 832); three in about four years (Nos. 127, 494, and 691); one in five years (No. 736); and one in seven years (No. 2). In two cases (Nos. 831 and 847) the duration of life after ovariotomy is not stated, but as both patients were operated on in 1877 they must have died within six years. Thus 27 of the 36 patients that had cancer died within three years of their operations.

I think it will hardly be gainsaid that the four patients dying with cancer within a fortnight of their operations had malignant disease when they were operated on. Moreover, it is incontrovertible that in many cases when an ovarian tumour is removed and examined under the microscope conclusive evidence of the presence of cancer may be found. The patients may become quite well for a time but the disease, so far as my experience goes, always recurs and usually this is evident within three years. Hence, when I see that so many of Spencer Wells's cases developed malignant disease within three years of being operated on the conclusion seems to me unavoidable that in most of them, if not in all, the disease removed was malignant. The 3·2 per cent. in which a recurrence (as I believe it to be in most of the cases) took place and the 0·4 per cent. of cases dying from the operation, with cancer, make 3·6 per cent., a figure very much below the 8 per cent. which Mr. Williams quoted as the percentage of malignancy in ovarian tumours. A larger number of cases of malignant disease was therefore to be expected and there is no doubt that a later investigation would have revealed more by allowing other cases time to develop. But the table only included completed ovariotomies and therefore many malignant cases would not be in it. As three-fourths of the deaths from malignant disease occurred within three years of removal of the ovaries, and none after seven years, it is obvious that the patients who lived beyond three years would show a much smaller proportion of deaths from malignant disease, so that when all were dead the percentage of 36 would be very materially reduced. In THE LANCET of Nov. 14th, p. 1394, Mr. Williams wrote that there is "an extraordinary frequency of malignant disease after removal of both ovaries." This is not supported by Spencer Wells's table, for only six of the patients dying from malignant disease had both ovaries removed. This gives 0·6 per cent. which cannot be described as "extraordinary frequency."

I am, Sirs, yours faithfully,

Portman-street, Nov. 30th, 1903. JOHN D. MALCOLM.

[1] Abdominal Surgery, third edition, p. 156.
[2] Spencer Wells: Ovarian and Uterine Tumours, 1882, pp. 342–393.
[3] Loc. cit. p. 475.

THE LUNG REFLEX OF ABRAMS.

To the Editors of THE LANCET.

SIRS,—In view of the communication of Dr. R. D. Rudolf to THE LANCET of Nov. 21st, p. 1461, and a further communication from Dr. H. Campbell in THE LANCET of Nov. 28th, p. 1531, perhaps you will kindly allow me

to add a few words to my last letter. There seems to be a misconception on the part of Dr. Harry Campbell, otherwise he would not deem it necessary to insist on such an elementary physiological fact as that the inspiratory muscles augmented pulmonary suction, or, in other words, the negative intrapleural pressure. Of course they do, but such augmentation is produced by these muscles acting as an opposing force to the resistance offered by the pulmonary tension (or suction) or, to use my former expression, they are "directed against" this resistance Now this is quite a different condition of affairs from that which obtains at birth (or say in very extensive emphysema). At birth there is no negative pressure in the pleural cavities, no pulmonary tension acting in opposition to the inspiratory muscles; consequently in the initial stretching of the child's lung the forces inside and outside the chest are acting in the same direction, whereas when pulmonary elasticity is established these forces are acting against each other. Surely, therefore, my contention is correct that these conditions are "not parallel." With regard to the other points in his letter, I have stated several times the limits of passive recoil and if Dr. Campbell now admits this factor to be alone competent to produce a certain degree of thoracic expansion it is a pity that he should have made use of the expression "any expansion." As to the effect of the lung traction on the auricles I am not aware that physiologists have ever doubted that for which Dr. Campbell contends.

Coming to the possible extension of the lung borders in connexion with the production of the lung reflex there is a consideration introduced by Dr. Campbell which can be disposed of without much difficulty. He states that "by means of a complete inspiration the borders of the lung are made to travel to the uttermost confines of the pleura" and that a more extensive downward movement of the lungs than this must be "a physical impossibility." Such is by no means the case. The pleura does not descend as far in the thorax as the diaphragmatic attachments and after the pleural cavity is fully filled by the lungs there remains an interval into which the lungs can be stretched. As this is a fact of much importance and possibly but little known I may here quote Cunningham, than whom there is no greater authority: "The diaphragmatic pleura covers the portion of the upper surface of the diaphragm which lies to the outer side of the base of the pericardium, but it does not dip down to the bottom of the narrow interval between the thoracic wall and the diaphragm. In other words, a strip of the upper surface of the diaphragm adjoining its costal attachment is left uncovered."[1]

Dr. Rudolf has made some very interesting observations and like him I have also found certain discrepancies in the results obtained, but I am not to be held as endorsing every phenomenon described by Abrams, not because I have failed to obtain them, but because I have not had sufficient experience to warrant my giving an opinion. I have certainly obtained many of his results and for the rest I shall believe what he says owing to his already proved reputation as an observer. In regard to a great descent of the lung by means of the ether spray Abrams affirms that he can produce this "dependent upon certain conditions," and until these conditions are fulfilled any results obtained are inconclusive. It would have been more satisfactory seeing Dr. Rudolf attempted to elicit the reflex on subjects who had already practised deep inspirations if he had made control experiments so as to check any possible disturbing effects of these. His observation of a rhythmical contraction and dilatation of the lungs is of high interest both intrinsically and in connexion with the lung reflex phenomenon, and I can only endorse his hope that these matters will receive the full investigation which they deserve.

I am, Sirs, yours faithfully,

Henrietta-street, W., Nov. 28th, 1903. A. G. AULD.

THE ACTION OF MEDICINAL AND OTHER REMEDIES IN CARDIAC FAILURE.

To the Editors of THE LANCET.

SIRS,—At the very interesting and instructive discussion that followed Sir R Douglas Powell's paper on this subject at the meeting of the Medical Society of London on Nov. 23rd, time did not allow many Fellows to speak who would otherwise have done so. Perhaps you will allow me the hospitality of your journal for one or two remarks. The use of oxygen in heart failure, both from disease of the organ itself and in dilatation in the course of pneumonia, was strongly advocated by the reader of the paper and subsequent speakers. It was, however, pointed out that the extreme coldness of the gas when inhaled direct from the cylinder might do some harm, especially in pneumonia. I get over this difficulty by connecting the cylinder with a large Woulfe's bottle half filled with hot water by which means the gas is not only warmed but also moistened. An additional advantage of this arrangement is that one can see at a glance the rate in which the gas is issuing.—I am, Sirs, yours faithfully,

CHAS. W. CHAPMAN.

Weymouth-street, W., Nov. 30th, 1903.

[1] Text-book of Anatomy, 1902, p. 928.

THE NOMENCLATURE OF TRYPANOSOMES.

To the Editors of THE LANCET.

SIRS,—At a time when our knowledge of trypanosomes is extending rapidly and when within a brief space of time several new species have already been discovered it seems opportune to call attention to the law which governs the naming of a genus and its species—a law accepted without any reservations by all scientific men. Briefly it is the "law of priority" which establishes once and for all the generic and specific names. Thus, if an observer describing an organism for the first time does so in such a way as to make his description recognisable to subsequent observers and if he at the same time proposes to call the organism *A a*, then that name holds good absolutely and immutably always and it is not possible for a subsequent observer to call it *A b*; and even if it were shown later that the organism does not belong to the genus *A* but to the genus *B*, *a* (the specific name) still holds good as *B a*.

I desire to point out how in the naming of trypanosomes this law has lately been broken. Leaving totally aside any question of priority of discovery, for it has not the least bearing on this matter, it was Dutton who first described a trypanosome in man and also proposed for it the name trypanosoma Gambiense. If Dutton had not taken the remotest part in the discovery this name absolutely has priority and consequently trypanosoma hominis (Manson) and trypanosoma Nepveu (Sambon) must disappear. Similarly Castellani, describing the trypanosome at present associated with sleeping-sickness, proposed for it the name trypanosoma Ugandense and hence trypanosoma Castellani (Kruse) subsequently proposed is quite unjustifiable. Should eventually trypanosoma Ugandense (Castellani) be shown to be the same as trypanosoma Gambiense (Dutton) the former must also disappear. Trypanosoma Gambiense (Dutton) must therefore remain as the specific name for the trypanosome of human trypanosomiasis and trypanosoma Ugandense (Castellani) for the present, at any rate, of that associated with sleeping-sickness.

I am, Sirs, yours faithfully,

J. W. W. STEPHENS, M.D. Cantab.,
Lecturer on Tropical Medicine, Liverpool University.

Dec. 2nd, 1903.

THE TREATMENT OF LUPUS.

To the Editors of THE LANCET.

SIRS,—I was glad to note Dr. R. Prosser White's comment upon my article, the Successful Treatment of a Few Cases of Lupus, which appeared in THE LANCET of Nov. 14th, p. 1353. I was also glad to note the success that Dr. White has had in excision of similar cases. I feel convinced that excision combined with other treatment is most efficient where the disease is not far advanced, being more speedy in its effect and certainly less disfiguring in result than many methods of treatment. Dr. White inquires my reason for injecting arsenic. From experience I have found that this assists very materially the healing process after excision. Whether it is due to the alterative action of arsenic on the system or to its tonic action on the skin I cannot say, but it is certain that cases do better with than without it. Even in cases of eczema, psoriasis, &c., arsenic administered subdermically is attended with far superior results than when given by the mouth. The tuberculin injections after excision I consider of the greatest importance

as a prophylactic measure and from the fact that we can never be certain, however well excision has been performed, that all the diseased tissue has been completely removed. I have always found a reaction from the tuberculin injections after apparent thorough extirpation of very small patches of lupus, showing, I think, definitely, some remaining tuberculous material somewhere.

I am, Sirs, yours faithfully,

Newport, Mon., Nov. 28th, 1903. C. STANSER BOWKER.

THE BEHAVIOUR OF CANCER IN NERVE AREAS.

To the Editors of THE LANCET.

SIRS,—May I be allowed to add two remarks which your reporter omitted in epitomising my communication to the meeting of the Pathological Society of London held on Nov. 17th. I was speaking on the behaviour of carcinoma within nerve or trophic areas. I showed rodent ulcers corresponding to the areas of distribution of certain muscles. Your reporter omitted to say that they were the cutaneous muscles of the face. The addition is an important one because it is as yet unknown what is the exact nervous relationship between those cutaneous muscles and the skin of which they are component parts.

Neither does the epitome include that I showed, or attempted to show, that muscular, fascial, vascular, and lymphatic limitations were not the predominent factors of distribution of these ulcers, but their spread and areas of occupation were probably mainly influenced by a nerve or trophic agency. I am, Sirs, yours faithfully,

Harley-street, W., Nov. 25th, 1903. G. LENTHAL CHEATLE.

MEDICAL FACULTY OF THE UNIVERSITY OF LIVERPOOL.

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to a mistake in the return made by me of the winter entry of medical students at the University of Liverpool and published in THE LANCET of Oct. 31st (p. 1242). The number 111 in the first column represents the total number of students now in the school who are taking the full medical curriculum. The number of students entering for the first time and taking the full medical course is 23, as against 24 last year.

I am, Sirs, yours faithfully,

B. MOORE.

Dec. 1st, 1903. Dean of Medical Faculty.

SHIPS' SURGEONS AND FEES FROM PASSENGERS.

To the Editors of THE LANCET.

SIRS,—In a series of articles on "Life on a Liner" published recently in *Lloyd's Weekly* I notice that "The Ship's Doctor" refers to the subject of fees from passengers for medical attendance. His remarks are as follows:—

> Many travellers are in doubt as to the position of the ship's doctor in regard to his remuneration from passengers for services rendered. The Merchant Shipping Act enacts that "every foreign-going ship having 100 persons on board, or upwards, shall carry on board as part of her complement a duly qualified medical practitioner." Furthermore, an emigrant ship (i.e., a foreign-going ship which carries 50 or more steerage passengers) must have a medical man irrespective of the number of the crew or of the other passengers carried. The salary of the doctor on board is commensurate with these duties to his ship. To any passengers who are suffering from ordinary forms of sea-sickness and its concomitant evils or who receive injuries which are in any way due to the ship—for example, as from a fall produced by the ship's rolling—the doctor's services are free. For any sickness contracted before sailing or during a voyage which is not connected with the above-named conditions he is entitled to a remuneration at the same rate as he would receive on shore. Obviously it would be as unfair to expect that his services to passengers should be rendered gratis as it would be for any visitor in a hotel or traveller on the railway to expect to have medical attendance free in any illness for which the hotel or railway authorities could not be held responsible.

The case has here been put clearly and concisely. After seven years' experience in first-class ocean-going steamers I should like to supplement these remarks with a few of my own observations. Ships' surgeons are of two kinds: 1. Those who at the end of a college curriculum, for health or the sake of pleasure and to see the world, take a voyage or two as surgeon thereby saving travelling expenses. Such men, I take it, are not particularly interested in the emoluments attached to any position which they do not intend to hold for any time. Not a few, I fear, have earned a reputation for intemperate habits, hence the suspicion still lurks in the minds of too many that because a man is a ship's surgeon therefore he is not much good. 2. Those who for various reasons elect to make the sea life a permanency. That the post of ship's surgeon in first-class passenger lines is difficult to obtain and that attainments, professional and social, of a high order are required of those who hold them are known best to those concerned. "The Ship's Doctor," in quoting from the Merchant Shipping Act, demonstrates clearly that in large passenger ships the surgeon's first obligations are to his ship and the crew for whose benefit he is employed by the company. For this he receives a "wage" varying from £6 to a maximum of £10 per month. Were this to be the only remuneration obtainable at sea it is reasonable to suppose that no experienced or well-qualified surgeon could stay any time on a ship.

As regards passengers in relation to the surgeon I think the following groups will include all: (1) the passenger who takes the initiative by remunerating the surgeon, perhaps handsomely, for any services rendered; (2) the passenger who, at the end of a consultation or attendance, will at once ask for his bill and pay it if reasonable; (3) the passenger who, travelling perhaps for the first time, really does not know whether to approach the surgeon or to wait for a bill being sent in or what he ought to do but is pleased to be enlightened on the matter; (4) the passenger who, either wilfully or through ignorance, clings to the old-time notion that the surgeon is there solely for the benefit of passengers; and (5) the passenger who never intends to pay the surgeon any more than he intends to tip the steward or the stewardess for any services rendered.

Of these groups the last two are obviously unsatisfactory to deal with. The difficulty is increased by the fact that seldom is a ship's surgeon allowed by his company to send in a regular bill for attendance as he could do on shore. Why he should not do so and thereby make it a matter of ordinary business instead of sentiment seems difficult to imagine. I presume that the particulars of the bill would be open to analysis both by the patient and by the company if referred to them; therefore any overcharge by the ship's surgeon who did not know his business could be remedied or repudiated. I have met at least three managers who have considered it right and proper that the surgeon should send in a bill for attendance. Of these one I remember who summoned me to answer the charge made by a passenger that I had presented him with a bill for five guineas for three weeks' attendance while suffering from syphilitic ulceration of the mouth. "Doctor," said the manager, "I am surprised at your folly for trying to convert our ship into a hospital for the treatment of venereal disease. You ought to have charged that man 25 instead of five guineas." In "Presbrey's Information Guide for Transatlantic Travellers," published and circulated on all steamers by the Frank Presbrey Company, New York, U.S.A., the following lines appear: "It is an erroneous impression that the ship's physician is provided solely for the accommodation of passengers. Maritime laws require steamship companies to employ physicians on all vessels carrying large crews. Every transatlantic steamer carries a competent physician and surgeon whose services are obtainable by passengers at corresponding rates of remuneration to those paid on shore." This recommendation from such a reputable source is valuable, but, of course, is not "official." Even if companies were to allow their surgeons to send in a bill I know from experience and for reasons already stated that in the majority of cases there would be no occasion to render it. In order to deal with the class of passengers who do not intend to pay the surgeon at all, the remedy I would suggest is *that the bill be sent in not in the surgeon's, but in the company's, name.* This would bring home the obligation to the passenger and the company could deal thereafter with the surgeon on the matter as they considered proper. "The Ship's Doctor" is wise in recognising that no remuneration should be suggested in the case of an injury to a passenger being due to any fault of the ship or carelessness, perhaps, of the crew.

One other point. Passengers often call at, or send to, the surgery for pills, powders, &c., where no attendance or consultation is asked or even necessary. I have known ships' surgeons foolish enough to make a charge for these. This is radically wrong, inasmuch as the drugs

being provided by the company, are not theirs to sell. To charge for *professional skilled advice* is quite another matter. The fact that ships' surgeons, isolated as they are at sea, have little chance even of meeting in consultation, urges me to lay this matter before those whom it may concern through the medium of your valuable columns in the hope that they may see that nothing I have stated is either untrue or unreasonable. Perhaps, also, thereby misunderstandings which have hitherto existed may be removed.

I am, Sirs, yours faithfully,

Nov. 27th, 1903. ANOTHER SHIP'S DOCTOR.

THE FUTURE OF ST. BARTHOLOMEW'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I am glad to find that Mr. Andrew Motion has not the hardihood to repeat his statement that "the views of the staff have never reached the governors." My object in writing has been attained and I thank you for the opportunity you have afforded me of proving beyond the possibility of contradiction that no one can truthfully say that the staff did not inform every one of the governors most fully of their opinions more than two years ago. I will only add that I did not expect Mr. Motion to be able to give satisfactory answers to my questions as to what action he has taken in the past, neither do I regret his reticence. My questions have quite satisfactorily answered themselves, for Mr. Motion's silence as to what he did is more eloquent than many words.—I am, Sirs, yours faithfully,

Nov. 30th, 1903. A ST. BARTHOLOMEW'S MAN.

THE ASSURANCE OF UNDER-AVERAGE LIVES.

To the Editors of THE LANCET.

SIRS,—Should a medical officer recommend for acceptance at ordinary rate on a "limited payments" scale a life chargeable with an extra premium on the "whole of life" scale? It seems to me that the practice where it exists must be due to misapprehensions not altogether unnatural as to the relationship of one scale of premium to another and the relative position of a life office with reference to the risks on each scale. Yet it concerns both the medical profession and the life offices that on points common to both clear *general* ideas should be held, whatever may be considered reasonable in isolated and exceptional cases. I therefore venture to ask space in your columns for a discussion of the question I have put.

To take an example. At the age of 35 years the average "with profits" premium payable during life is about £2 16*s.* per cent. for a first-class life, while the corresponding rate limited to 20 annual payments for the same benefit—an assurance of £100 payable at death—is about £3 16*s.* Now, on the "whole of life" scale an under-average life is generally admitted as at an advanced age, or, what is practically the same thing, at an addition to the normal premium of it may be from 5*s.* to 20*s.* per cent. of the sum assured. But suppose such a life were willing to pay on the 20 years scale. It might at first sight seem that the higher premium justified the office in dispensing with extra altogether or at least in accepting at a modified addition. I venture to think otherwise and would offer the following considerations. Both premiums are based on the mortality experience of first-class lives. The difference of 20*s.* between them is the discounted equivalent of the life scale premiums after 20 years. To set it in whole or in part against extra risk is to make it do double duty, for which it is inadequate. It places the under-average life on the same footing as a first-class life, adopting the same scale, and is thus unfair to the latter. If the excess over the life scale rate were adequate for both purposes—for commutation and to meet extra risk—it would follow that a first-class life should be assurable on the "limited payments" scale at less than the normal rate. A more practical objection is that the life so accepted passes current thereafter as first-class. In a subsequent proposal to another office he may be able to conceal the full truth as to the previous acceptance.

These appear the main objections to the practice. There are other considerations against it but I pass these to answer one or two points that might be urged in its favour. It might be said that if the life survives at least long enough to complete the 20 payments the office is safe. But that does not follow. The office has not merely to receive premiums but to pay the claim and if the claim is accelerated—if, in other words, the normal "expectation of life" on which the premium is based does not hold good for the class of lives in question—the office must lose no matter how many premiums have been received. Again, it might be said, if the life should fail before the premium has ceased then the office will generally have received more than the life-scale rate with a substantial addition and thus be actually better off than if the latter had been charged. No doubt; still the fact remains that the addition had quite another purpose to serve, as already explained. An office must balance losses with gains, and where are the gains in the case of those lives of the same class that survive long enough to be free of premiums and yet by hypothesis fall short of the normal expectation? If all the under-average lives are to fail within the 20 payments period the business cannot be good for the office. And to say that in the case of those that do fail the loss has been minimised is to forget that on life scale with a suitable extra the office would be recouped out of the premiums of those who would survive the 20 years period.

What, then, should be the "limited payments" extra corresponding to a given extra on "whole life" scale? Any investigations of my own point to an *increased* extra, the increase over the "whole life" extra depending mainly on the scale selected and partly upon the *incidence*—whether immediate or deferred, increasing or decreasing—of the extra risk in the particular case. This may read like a counsel of actuarial perfection; nevertheless, I imagine it is one which most actuaries would concur in. I am of course aware that purely actuarial considerations do not alone affect this more than other assurance questions. No one, again, could be more sensible than I am of the services of medical science to life assurance. To those services the results of the recent official mortality investigation bear striking testimony in the light mortality disclosed. But the new tables are being adopted as the basis for the future and just on that account it is important to maintain the same high standard of selection as has hitherto been the rule.

I am, Sirs, yours faithfully,

Nov. 24th, 1903. ACTUARY.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

Cooking in the British Army.—A Modified Form of the Liernur System of Drainage for Part of Bombay City.—The Plague Epidemic.—A Proposed Burial By-law for Calcutta.—The Great Improvement Scheme for Calcutta.—The Conservancy Question.

FURTHER steps are about to be taken with the object of banishing the native cook from the kitchens of British troops in India. Over 100 Warren's cooking ranges will be erected at various stations and 22 sergeant-cooks are to be appointed. A school of cookery is to be established at Poona at which non-commissioned officers will be trained to become sergeant-cooks and the soldier-cooks of batteries, squadrons, and companies will also be instructed there. In the plains during the hot weather the actual cooking will be done by natives supervised by British soldiers who will be responsible for cleanliness and the observance of sanitary conditions, but elsewhere and during the cool season the cooking will be done by soldiers. It is contemplated to introduce gradually Warren's cooking range at all stations where British troops are quartered. During field training the school students will be placed at the disposal of companies and a portion of the training will consist in taking a company away from barracks for several days during which individual cooking of rations will be the only manner of preparing food permitted. It is considered that every individual soldier should be trained to cook for himself exactly as he may have to do on service. Instruction will also be given upon the slaughter of animals and the baking of flour.

Bombay city has for long had trouble with its drainage and part of the city has the Shone system and another part a different system. Now a third method of draining is to be tried in the form of a modified Liernur system. As this method is chiefly adapted for flat ground it may be successful for part of Bombay city, but further inquiries about the Liernur system are to be made by the deputy executive engineer now in Europe. No other town in India has adopted this system.

The plague mortality throughout India has risen to 18,177, an increase of nearly 2000 over the previous week. Bombay Presidency reports 11 758 deaths, Central Provinces 1522, Rajputana 1270, Mysore and Hyderabad over 900 each, the Punjab and the United Provinces over 650 each, and Bengal 219. Poona city shows signs of a recrudescence but at Mhow the outbreak has subsided. To illustrate the changes which have occurred in the character of plague measures the recent arrangements for Belgaum city may be quoted—they are evacuation, supplying material for huts, housing the poor in segregation huts, custody of people's valuables, ample police protection, and all attention and care in the general plague hospital. Disinfection is chiefly relied upon. The outbreak is passing through its natural course.

A proposed burial by-law for Calcutta to the effect that no grave or vault shall be used for a second interment within a period of six years and that no grave in any burial ground shall be reopened within six years without special permission has called forth much opposition. It is difficult to see upon what sanitary grounds such a by-law has been made—the present limit of time being only ten months—and it may prove a hardship to families in small circumstances as they would be put to the expense of purchasing a new grave for every member who dies within the fixed period. The soil of Calcutta is particularly damp, even in the dry season, and the subsoil water is within a few feet of the surface, but the immense areas of land which are wasted in burial grounds should be considered and by-laws of this character if not based on sanitary considerations are vexatious. As burial of the dead is practised by Mahomedans as well as by Christians the matter is of no small importance. Burial without coffins deserves the serious attention of the Christian community apart from the question raised by the proposed by-law.

The great scheme for the improvement of Calcutta has not yet been definitely announced by the Government but the chairman of the corporation in a note just circulated has probably foreshadowed it. Something more than the mere making of new streets is admitted to be required. The congested and insanitary groups of huts known as bustees will have to be demolished and rebuilt. The insanitary quarter of large brick-built buildings known as Burra Bazar will apparently be dealt with by bringing each individual house in default into more or less conformity with the sanitary requirements of the building regulations. The troublesome question of rehousing the dispossessed poor may be met by the construction of habitations in available tracts to the north and south of the city provided some additional facilities are established for cheap and easy conveyance to and from the great centres of industry. New thoroughfares for the suburbs are to be opened out. The question of the improvement of Calcutta is too difficult for the corporation to solve unaided and as the financial aspect of the scheme has not been further referred to we shall probably have full particulars when the appointment of the Improvement Trust is formally announced.

The question whether the conservancy of the city of Calcutta should be under the engineer department or the health department or whether it should be separately managed with a special officer for the purpose has now had abundant trial because all three systems have had their day. At the present time it is under the engineer department but the Government suggests that it should be managed by the health department. A committee of the corporation has been appointed to consider and to report on the matter. No one can say that it has ever been successfully managed in Calcutta but on general principles the engineer department should undertake the work of construction and repair and the health department that of cleansing and the removal of nuisances. In Bombay the conservancy is under the health department. Health officers at home have no idea of the enormous quantity of refuse material which is deposited in the streets and which has to be removed daily. It averages over 600 tons a day.

Nov. 12th.

THE INTERNATIONAL SANITARY CONFERENCE AND THE NEW FRENCH PUBLIC HEALTH ACT.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

Paris, Nov. 30th.

THE meeting of the International Sanitary Conference in Paris, which is about to terminate its labours this week, will naturally cause the responsible authorities of all countries concerned to look to sanitary matters in general. Indeed, and to put a long story in a few words, the question may be asked, What have these conferences done? They do not hold academic debates such as I have so recently recorded in regard to the Eleventh International Congress of Hygiene and Demography. The object is not to theorise but to realise. These conferences consist of the official representatives of many Governments who possess the necessary powers to draft treaties that shall be binding on the signatory Powers. But what in the main have these treaties done, for there have already been several such conferences? Without recapitulating details the principal result has been a gradual relaxation of the measures of quarantine that used to be enforced. In times gone by and now, happily, becoming more and more remote the only precaution Governments attempted to enforce so as to prevent epidemics spreading from country to country was the application of more or less rigorous systems of quarantine. Then, with the advance of sanitation, it was discovered that good drainage, good water supply, and ample ventilation were far more efficacious in preventing the spread of epidemics. Thus it is that to day in those countries where sanitation generally is most advanced there is the strongest desire to abolish quarantines. On the other hand, it is countries like Turkey, where there is no public sanitation at all, that are most anxious to maintain quarantines. Nor is it so long ago that more advanced nations such as France were also much opposed to the abolition of the old quarantine regulations. At the International Congress of Hygiene held at The Hague in 1884 Dr. Dutreaux Bey of Cairo and myself were the only members in the section dealing with the subject who voted in favour of the abolition of quarantines. The vote at the time, I well remember, caused some sensation. A minority of two was considered a curiosity. Those who spoke in our presence congratulated us on our audacity; those who spoke about us when we were not present blamed us for our presumption and want of deference to the views of the eminent scientists who advocated quarantines. In less than 20 years, however, the minority of two became the majority and now it is only when there are actually cases on board a ship on arrival in port that some mitigated form of quarantine is imposed. In 1892 1893, and 1894, when cholera prevailed to a very large extent throughout the continent, many cases of this disease were imported into England. These did not give rise to an epidemic. The same may be said concerning the plague. Though both in regard to cholera and to plague at Great Grimsby and at Glasgow these diseases did spread a little among the general population there was no epidemic. If I remember correctly there were 30 or 31 cases of cholera at Grimsby. This experience was useful as showing that the sanitation of both Glasgow and Grimsby was not a credit to those towns. At Grimsby a considerable portion of the town was built on an artificial subsoil made of the foulest refuse, while at Glasgow overcrowding and poverty have rendered the question of the housing of the poor particularly acute.

If in England, which was the first nation in Europe to apply on a large scale modern and practical methods of sanitation, there are still weak points, this is still more the case on the continent. Nevertheless, great progress has been accomplished and in some respects continental nations are now surpassing the example given by England. Matters of sanitation, especially in regard to drainage, are not so well understood or their importance appreciated by the general public as they are in England, but the scientific advisers of the Governments have now acquired much knowledge on these subjects. In France especially the knowledge and opinions of the sanitary reformer do not differ in a marked degree from those held by his British colleague, but if he was equally ready to advance the law does not afford the same facilities. Certainly epidemics need not be feared and quarantines may be abolished where there is good sanitation,

but how is this necessary excellence of sanitation to be enforced on ignorant and unwilling communities? The French law was quite inadequate for such a purpose and effort after effort was made to obtain fresh legislation From the Chamber of Deputies up to the Senate and down again from the Senate to the Chamber of Deputies project after project, Bill after Bill, was handed backwards and forwards. Amendment succeeded amendment, year passed after year, and the sanitary reformers of France, at first so ardent and hopeful, grew sick at heart and weary in mind, but new blood strengthened the old cause. Fauvel, Bouchardat, Durand Claye, Napias, and many other eminent sanitary reformers died in harness. Now, however, young men are coming forward whose names are not known and yet who treat with familiarity and accept as well established doctrines which such men as those mentioned above taught as great novelties. And at last the legislature itself has moved with the times. The promises made by the Premier, M. Waldeck Rousseau, to the International Congress of Hygiene which met in Paris in 1900 have been realised. We have now the law of Feb. 15th, 1902, relating to the protection of public health modified by the law of April 7th, 1903, in regard to the organisation and working of the services of hygiene of the department of the Seine. This law being promulgated, that is, published in the *Official Journal* on Feb. 19th, 1902, came into force on Feb. 19th, 1903

Of course, we have in this law, as is usual in such cases, a compromise. It is not as emphatic and drastic as the more ardent and impatient sanitary reformers desired. Nevertheless, it has its good points and even its strong points. Mention has been made that England set the example in regard to public health questions, but how does British legislation in regard to vaccination compare with the following which is Article 6 of the new French law?—

Art. 6.—Anti-small-pox vaccination is obligatory during the first year of life as also revaccination during the course of the eleventh and the twenty-first year. The parents and tutors are held personally responsible for the execution of this measure. In accordance with the advice given by the Academy of Medicine and the Consultative Committee of Public Hygiene of France regulations established by the public administration will decide upon the measures rendered necessary by the application of the present article.

By the above, and having now rendered not only vaccination but revaccination compulsory, it will at once be seen that the French Government need not compel ships to undergo a lengthy quarantine so as to prevent the introduction of small-pox. For other diseases, however, the question is not so simple. Every town requires a good system of drainage and an abundant supply of pure water. There was no need of a new law to render this fact obvious but there was great need of a new law to compel the municipalities to act accordingly. It is a matter of notoriety that there are many towns with but a questionable water supply and no system whatsoever of drainage that is worthy of the name. What has been done so far is due to the intelligence and enterprise of individual municipalities when it was not due, as in some health resorts largely frequented by Americans and English, to the loud complaints and pressure brought to bear by these foreign visitors. In some towns, notably at Paris and Bordeaux, processes of disinfection after infectious diseases have been most ably and scientifically organised, while in other towns nothing has been done. The new law proposes to put an end to all such anomalies. This is certainly a giant task but there is no reason why the laws of health should be better applied in one town than in another. The law now insists that wherever he may live the citizen of the French Republic shall be equally well guarded against those dangers that can be mitigated by a good administration. Therefore the law is applied to all and all are called upon to put it into execution. One of its most useful and comprehensive stipulations is the first article and this is worded as follows:—

Article 1.—In all communes the mayor so as to protect the public health must determine, according to the advice of the municipal council and under the form of municipal decrees, sanitary regulations relating to—

1. The precautions to be taken, in the carrying out of Article 97 of the law of April 5th, 1884, to prevent or to put an end to the transmissible diseases mentioned in Article 4 of the present law, especially in regard to measures of disinfection or even of the destruction of the objects that have been used by the sick or that they have soiled; and, generally speaking, of objects, whatever their nature, that might serve as the vehicle of contagion.

2. The instructions destined to insure the salubrity of houses and their dependencies, of private roads, whether closed or not at their extremities, of the furnished lodgings and other agglomerations whatever may be their nature, notably that which is prescribed in regard to the supply of potable water and the removal of used materials.

The latter term implies sewage and though the law of April 5th, 1884, states that the mayors shall take measures against epidemic diseases there is no definition as to what these measures should be. The new law, on the contrary, specifies and stipulates for the immediate removal of sewage, for a good water supply, and, what is very important, especially in Paris, it gives the mayor the right to look after the salubrity of private as well as of public roads. Then disinfection is rendered obligatory. But while it confers all these powers and duties on the mayors and municipal councils it does not interfere with the powers of the prefect to act in respect to several communes or to step in and to carry out in any one commune that which its municipal council has neglected. But more than this Article 2 of the new law states that if within one year of its promulgation communes have not carried out the law then the prefect must himself at once act in their stead. The chief thing that has to be done at once is the drawing up and enacting of what in England would be called local by-laws. In France, as in England, the Minister of the Interior, like our Local Government Board, has drawn up a set of model by-laws and these have been sent to all the communes; otherwise it is much to be feared that there are some municipal councils who would have been thrown into a state of hopeless muddle. But more important and more difficult still are the questions of drainage and water-supply. Many towns where these services are in a very imperfect condition are nevertheless likely to plead that they have no need to take further measures. Such attempts to elude the law may, however, be met by Article 9. Here it is stated that if during three years consecutively the death rate of a commune exceeds the average mortality of the whole of France the prefect must cause a special inquiry to be made by the Departmental Council of Hygiene. If this does not result in an agreement as to what should be done the whole matter is to be referred to the Minister of the Interior, by whom the recalcitrant commune may be ordered and compelled to carry out the necessary works, especially if they are connected with water-supply or drainage.

Thus it will be seen that there is some hope of forcing matters forward, for the local authorities now know that if they do not act of their own accord they will ultimately be compelled to do so by the central government. This being the case, the representatives of the French Government at the International Sanitary Conference were able to contemplate the prospect afforded by the possible abolition of quarantine with greater equanimity and more favour than was possible some years ago. It is most satisfactory to know that France has now definitely recognised that the best of all protection of a country against the importation of epidemics from abroad is afforded by putting its sanitary arrangements in order. This is all the more important as France is a great educational centre to which the newer nations send their young men to take university degrees and to qualify, especially in medicine. All these students carry back to their own rising nationalities—such as the Balkan principalities or the South American republics—a knowledge of what has been done in France and this forms the basis of legislature in those countries. Therefore the progress achieved in France will extend far beyond its frontiers, while it enables the French representatives to assume a progressive attitude at such an international conference as that which is now sitting in Paris.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Police Circular to the Profession.

THE following remarkable circular has recently been issued to the members of the medical profession in this city:—

CHILD MURDER.

SIR,—I beg to inform you that at 9.20 A.M. on Nov. 17th, 1903, the dead body of a newly-born female child was found in an opening in Aston Brook-street, in this city, wrapped in an *Evening Dispatch* dated Nov. 16th, 1903, and having a piece of lace (probably torn from underclothing) tied tightly round the neck. The body was warm when found.

A verdict of murder has been returned at the inquest and should you be called upon to professionally attend any woman who appears to have been recently confined under circumstances of this nature I

should be obliged if you would immediately communicate with me by telephone or otherwise.

I am, Sir, your obedient servant,
CHARLES HAUGHTON RAFTER, Chief Constable.

This circular having attracted considerable attention and elicited much comment an evening paper has obtained interviews with various persons respecting it. Amongst these was the city coroner who, though not himself a medical man, is, and always has been, on the best of terms with the members of our profession. According to the paper in question this gentleman sees nothing in the circular to which medical men can reasonably take exception. "There is," he says, "a common law liability—a liability, that is, not specifically set down by Act of Parliament—under which it becomes the duty of any man, doctors included, to inform the authorities if he believes that a crime has been committed. But, of course, he can always please himself whether or not he does inform them. If he does not, then you have to prove that he has wilfully disregarded his obligation and that, I can imagine, would not always be an easy matter." As far as can be gathered the opinion of the local profession is certainly not favourable to the issue of circulars of this character which bear the appearance of inviting medical men to act as detectives for the police. It is understood that the circular in question will be one of the subjects of discussion at the meeting of the Coroners' Society which is shortly to take place.

Bequests to Local Charities.

On June 1st in this year there died in the city a wealthy inhabitant named Thomas Best who left large sums to be given in charity and to educational and other organisations. The portion of this bequest which was to be devoted to charity amounted to £51,000 and this was to be distributed by his executors. The remainder of the money is to be dealt with by the corporation and has not as yet been allocated. At a meeting a few days ago of representatives of a number of local charities the executors announced the division which they had decided upon and gave cheques for the respective amounts to the treasurers of the different institutions benefiting by their action. Amongst the amounts given were £5000 each to the General Hospital and General Dispensary, £4000 each to the Blind and Deaf and Dumb Institutions, £3000 to the Queen's Hospital, £2000 each to the Orthopædic, Women's, and Skin Hospitals, as also to the Home for Incurables at Leamington, and £1000 each to the Ear and Throat, Eye, and Homœopathic Hospitals and to the Lying in Charity. By the will of Mrs. Sneath, who died at Sutton Coldfield, close to Birmingham, in September, the Queen's Hospital receives £500 and the General Hospital will receive a similar sum on the falling in of an annuity bequeathed under the will. At the same time the Ear and Throat and Eye Hospitals and the institutions for the Blind and the Deaf will each receive £300 and the Orthopædic Hospital £200.

Ptomaine Poisoning.

A considerable outbreak of ptomaine poisoning has lately occurred in Brewood, a small town in Staffordshire not far from this city. The outbreak is alleged to have occurred in connexion with the eating of brawn supplied by a local grocer and at least 40 persons have been affected, some of them seriously, though none fatally. The seller of the brawn strenuously denies that there was anything the matter with it and asserts that it was made in scrupulously clean vessels. A portion of the brawn has been sent to the county analyst but so far no report as to his examination has been made public.

Consumption Sanatorium for Warwickshire.

At the last meeting of the county council the sanitary committee, after pointing out that there were 4000 persons in the county suffering from some form of tuberculous disease, recommended that the chairman of the council should be requested to take steps for the convening of a public meeting of representatives of all town councils, urban and rural district councils, boards of guardians, and medical men in the county and others interested in this question to consider the desirability of making adequate provision for the treatment of consumptive patients in the county. The chairman (Mr. Dugdale, K.C.) said that he should be sorry to put this matter upon the rates of the county. If they did this they would have to support general hospitals and they could not stop short at consumption; they must deal with other diseases out of public money. Lord Hertford suggested that they had conceded this principle by maintaining homes for inebriates. Mr. Blackham said that they should reject the proposals as they would ultimately cost them at least £100,000. Dr. T. Savage said he was sorry that the proposal was not received with more sympathy and encouragement. Other counties had moved or were moving in this direction and when they considered that one person in ten died from some form of consumption, and that it was an infectious disease, they would realise the importance of establishing a sanatorium of this character. In the end the recommendation was rejected by 46 votes to 5.

Warwickshire County Asylum.

A small enlargement of this building has been decided upon which it is believed will meet the needs of the next two years. The day space accommodation is for 1017 inmates, 430 males and 587 females, but there is only night space for 945—viz., 398 males and 547 females. There are now in the asylum 996 patients, so that some increase in the night accommodation is urgently demanded. It has been decided to provide buildings which will afford night space for 32 males and 40 females, thus bringing the night up to the level of the day accommodation.

The Guest Hospital, Dudley.

The thirty-second report of this hospital states that the total receipts for the year amounted to £4238, being £435 more than in 1902. This increase was not due to any exceptional additions to the ordinary sources of income but to the generous gift of £500 by Mr. Hugh Lewis of Sutton Coldfield. There was again a deplorable decrease in private subscriptions. The amount was only £482 and there were other serious withdrawals to take place in the year ending September next. The workmen's contributions amounted to £948, or £95 in excess of last year, which was then the highest on record. The efforts of the workmen's committee in bringing the workmen's contributions to a recognised system deserved and received the hearty thanks of the authorities. There was every reason to believe that the increase would continue. The number of patients treated in the wards was 756, the daily average being 66, compared with 826 and 71 respectively last year. The number of casualties treated without being admitted was 846. The average stay of patients was 32½ days and the average cost per head was £59 10*s.* 10*d.* The cost per patient was £5 3*s.* 11*d.*

North Staffordshire Infirmary.

At the annual meeting of this institution, which has recently been held, it was stated that the annual income had been £11,326, a decrease of £855 as compared with the last year. The expenditure had been £12,420, this showing an increase of only £2. The number of in-patients admitted during the year was 1974, against 1993 in the previous year. The number of out-patients was 12,901, against 12,907. The number of casualties was 781 and that of eye cases was 2390. The committee regretted to note a serious falling off in the amount received from private and establishment subscriptions, also in donations and Hospital Sunday collections. The Hospital Saturday Fund collections, which this year exceeded the amount realised in any previous year, helped to compensate for the falling off in other items. The amount received from this source was £2078, as against £1195 in 1902 and £1936 in 1901. The King Edward VII. Home for Nurses would shortly be ready for occupation. There had been a very slight increase in the ordinary expenditure and the extraordinary expenditure showed a reduction of £261. The average cost per occupied bed was £71 7*s.* 7½*d.*, as against £73 9*s.* 7½*d.* last year.

Dec. 1st.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Manchester and Salford Trades Council and Infectious Disease.

AT the meeting of the Manchester and Salford Trades Council on Nov. 19th one matter came forward that may be referred to. A complaint had been made that "disease was often spread by the method adopted in carrying on the work of disinfection of premises after the occurrence of cases of infection," and a letter was read from Mr. C. H. Tattersall, the medical officer of health of Salford, denying the allegation so far as that borough was concerned and asking for information as to any supposed case in which this had occurred.

The council had also drawn the attention of the sanitary committee of the Manchester corporation to a similar complaint and the reply was that the matter should receive consideration. The member of the council who had brought the matter forward said he was prepared with evidence with regard to Manchester and the question was referred to the executive committee. It is most unlikely that the very able medical officers of health of Manchester and Salford would sanction methods of disinfection calculated to spread the diseases against which they are so strenuously fighting and it will probably be found that the Trades Council is mistaken. But if the idea exists the sooner it is inquired into the better. It is said that the charges were that many of the disinfectors described as "walking infectors" were put on piece-work and therefore got through as much as they could but in an unsatisfactory manner; that they had no change of clothing, no bath, and low pay—2*s.* 3*d.* per room for casuals—work for which this member of the Trades Council said he should ask 7*s.* or 8*s.* The rate of payment has no doubt been carefully considered, but members of trade councils are not believed to estimate the value of their own services at too low a rate.

Lancashire County Council and Vaccination.

At the meeting of the Lancashire county council in November the report of the Public Health Committee stated that in the three months ended Sept. 30th there had been 159 cases of small-pox, with eight deaths, against 416 cases and 29 deaths in the previous quarter. The committee recommended "that primary vaccination should be made compulsory; that the control of the carrying out of the Vaccination Act should be transferred from boards of guardians to the county councils; and that greater facilities for the supply of pure glycerinated lymph should be afforded." An amendment to the effect that the proposals were too drastic was lost and they were carried by a large majority. It is refreshing to meet with an instance where common sense is distinctly shown in spite of the usual talk about interference with the liberty of the subject to spread small-pox.

Coöperators and Convalescent Homes.

Some time ago the coöperative societies in the north-western section of the Coöperative Union, situated chiefly in Lancashire and Yorkshire, wished to establish convalescent homes, and a committee has been making investigations as to sites. They recommend that there shall be two homes, one at Lytham and the other at Otley. They have been offered a site at the former place on a lease of 999 years and propose to erect a building to accommodate over 60 visitors and to leave room for extensions. They are negotiating for a site at Otley of over 12 acres in extent, with a well-built house on it, amid some of the most beautiful scenery in the valley of the Wharfe. It is estimated that £24,000 will be required to carry out the schemes.

Cancer Treatment at the Christie Hospital.

The story of a cancer hospital must always be one of suffering, with little room for hope to brighten the outlook; and the annual report of the Christie Hospital could tell only of efforts to alleviate and not to cure. For many of the patients—59 during the past year—"are admitted in a late stage of the disease, beyond all hope of cure," so that they may be carefully and kindly nursed for the remainder of their days; for them it is a home as well as a hospital. By the changes in connexion with the removal of the Royal Infirmary the Christie Hospital authorities become tenants of the infirmary, but this will make no change in its management. The total number of cases treated during the year which ended on Sept. 30th was 186, of whom 133 were new patients. Research work has been steadily carried on and the members of the medical board are preparing "an exhaustive clinical and pathological report on the cases treated during the past ten years." The report on the x-ray treatment presented by Dr. R. B. Wild, chairman of the medical board, stated that since January "14 patients have been under treatment and of these one was healed, one nearly healed, two improved, and ten received no benefit." So far it has been useless in the deep-seated and more malignant forms of cancer but is successful in a majority of the cases of rodent ulcer. Time will not as yet allow of any judgment on the question of recurrence. Radium is being tried and has healed superficial and slight cases as the x rays have done and it did away with the cumbrous apparatus. It need scarcely be said that "there is a considerable debit balance on the accounts." The treasurer announced the gift of £100 by Mrs. Christie towards the deficit.

Overcrowding at Withington Workhouse.

Mr. Jenner-Fust, the Poor-law inspector, drew attention at the last meeting of the Chorlton board of guardians to the serious overcrowding at the Withington workhouse. The dormitories are said to be so crowded that "the corridors had had to be brought into use for accommodating the inmates." A hard winter and bad trade are anticipated and a severe frost or heavy fall of snow, which seems to have a paralysing influence in our large towns, would, as Mr. Jenner-Fust said, place the guardians in "a difficult position." He suggested the renting of "an old warehouse or other large building" for temporary use and also the provision of a receiving house for children so as to be able to deal with the children of the "ins-and-outs class" whom it was not thought desirable to mix with those permanently placed at Styal. It may perhaps be remembered that the Chorlton guardians have at Styal a very successful cottage home colony for children.

New Infirmary for Prestwich Union.

A new infirmary for the Prestwich Union is to be built in Blackley. The land, comprising 34 acres, forms the Booth Hall estate and was at one time, I believe, the property of a well-known bone-setter. The scheme is expected to cost between £8000 and £9000.

Dec. 1st.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

Cardiff Health Report.

IN his report for the third quarter of the present year the medical officer of health of Cardiff (Dr. E. Walford) gives some details of the work performed by the recently appointed woman sanitary inspector. Her work, it appears, is primarily concerned with those cases of consumption of which the medical officer of health receives information. She gives assistance and advice to those in charge of the patient, leaving a pamphlet containing the necessary instructions relating to disinfection and other preventive measures. The cases are re-visited at intervals of about two weeks in order to see that the instructions are understood and are being carried out. The same inspector is also engaged in connexion with measures for the reduction of infantile mortality. In a town such as Cardiff, where the general sanitary arrangements and the sanitary administration are excellent, it might be expected that the number of deaths among young children would be relatively small. This, however, is not so, for during the year 1902 the infantile mortality rate was 145 per 1000 births and during the previous ten years it was 160 per 1000 births. There is thus plenty of scope for the work of the woman inspector who now visits the houses of the poorer classes where a birth has occurred and leaves a printed pamphlet of instruction on infant feeding while at the same time she gives any necessary verbal advice. Investigations made by the same officer into the method of feeding those children who died from diarrhœa disclosed the fact that of the 36 children who died from that disease during the third quarter of the year only one was exclusively breast fed, four took other food as well as the breast, and the remaining 31 were fed on cows' milk or condensed milk either alone or with other foods. No record appears to have been made of the number of instances in which a tube feeding-bottle and a boat-bottle were used. It is of interest to find that the bacteriological aspect of the feeding question is being inquired into. Various specimens of food and of the excreta from infants have been submitted to Dr. Schölberg for examination at the Cardiff and county public health laboratory and the indications up to the present are that much of the food consumed by young children is subject to contamination, the result of want of care and cleanliness in the preparation. Dr. Walford anticipates that the results obtained by these bacteriological examinations will eventually throw light upon the various causes contributing to infantile mortality and will be useful for administrative purposes.

Tenure of Office of Medical Officers of Health.

At a meeting of the Herefordshire division of the British Medical Association held on Nov. 26th a resolution was

passed expressing the opinion that it is detrimental to the best interests of public health and the efficient carrying out of the laws relating thereto that medical officers of health should be appointed for limited periods and on a precarious tenure of office, and it is desirable that all medical officers of health should hold office upon the same terms as district Poor-law medical officers. It was also decided to request the council of the association to bring the question of the insecurity of tenure of office of medical officers of health before the divisions of the association.

Incorporated Society of Medical Officers of Health.

A dinner of the Midland branch will take place at the Grand Hotel, Birmingham, on Dec. 10th, at 7 P.M., when it is expected that Dr. Alfred Hill, late medical officer of health of Birmingham, and Dr. Joseph Groves, the president of the society, will be present as guests.

Housing of the Working Classes at Newport (Mon.).

The Newport (Mon.) town council placed itself in a very undignified position at a special meeting held on Nov. 24th, when the question of proceeding with a scheme for the erection of 66 workmen's houses which had received the sanction of the council on August 11th last[1] was again discussed. A proposal to defer the matter for 12 months was defeated, but a proposition to proceed at once with the scheme found 17 supporters and an equal number of opponents and the mayor declared that it was not carried. It is to be regretted that at the same meeting the housing committee was dissolved, for it has done most excellent work not only in preparing the scheme referred to but in the direction of causing uninhabitable houses to be closed or made fit for habitation.

Overcrowding in Bristol.

At the last meeting of the Bristol board of guardians during a discussion as to the adoption of four young girls of ages from eight to 15 years whose father was dead and whose mother was recently charged before the city justices with neglecting her children, a very lamentable condition was disclosed. It appears that the woman in question occupied two rooms and in one of them there slept, in addition to herself and the four girls, her son aged 20 years, her daughter aged 18 years, a child of three years, and a woman of bad character. According to the statements made by some of the guardians this is not an isolated instance and there would seem to be much more overcrowding in one room tenements in Bristol than is generally supposed. One member of the board said that it would be a long time before he again subscribed to foreign missions, for it was apparent that there was a great deal to be done by home missions.

Nov. 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Epidemic of Fever in Sligo.

WITHIN the past fortnight a serious outbreak of fever has appeared in the district surrounding the town of Sligo and so many patients have been admitted to the County Fever Hospital that it has become overcrowded. Dr. B. MacCarthy, medical inspector under the Local Government Board, attended a specially convened meeting of the hospital committee and his report which has just (Dec. 1st) appeared states that 48 cases of a malignant type of fever have already been admitted to the hospital and he feared that within a few days many more patients would be brought in. The report goes on to say that the hospital was absolutely without drainage and that the building was standing in a mass of sewage which was lapping its foundations. The medical men and nurses were in daily danger of losing their lives from the poisoned atmosphere which had now become so oppressive that the nurses found themselves unable to sleep at night. The committee decided to have sewers constructed at once. Dr. MacCarthy also attended the meeting of the board of guardians and reported on the filthy condition in which he found many of the houses in the infected area and as to the necessity of the overplus fever cases being provided for in the workhouse hospital. The guardians decided to leave the arrangements to the inspector and to the medical officer of the workhouse.

Insanity in Ireland.

At a conference of representatives of Irish district asylum committees held in the Richmond Asylum, Dublin, on Nov. 25th, some most alarming statistics in reference to the great prevalence of insanity in Ireland were brought forward. The total number of registered lunatics in Ireland is 22,138, showing an increase for 1902 of 508, which is an advance of 47 upon the increase of the previous year and a higher average than for the past ten years. Not only is there an increase, but an increasing ratio of increase in the total number of the insane. Mr. E. D. O'Neill (Limerick) read the first paper in which he referred to the excessive use among the young of alcohol, tea, and cigarettes as factors in the causation of insanity. The terrible depression and the emigration of the young and the healthy were, he said, directly or indirectly responsible for a large portion of the insanity which existed in Ireland to-day. Dr. W. Graham (Belfast), in the second paper, pointed out that in 1844 the number of registered insane was 4714; in 40 years it was doubled, and in 1902 it was almost quadrupled—17,380. In 1882 the number of first admissions to asylums in Ireland was 2137, in 1901 the number had swelled to 2821. In 1882 there were under care per 100 000 of the population 269, in 1901 it had risen to 487. He regarded alcoholism not merely as a cause of insanity but as an effect as well. He pointed out that in Ireland the gentry and the middle classes (professional man, educated artisan, and farmer) are rapidly disappearing—that is, the country is being depleted of her best and strongest elements, retaining only the weak and the unfit. In the past 40 years 4 000 000 people have left the country. Dr. Thomas Drapes (Enniscorthy) read a communication pointing out that in Ireland the situation was little short of appalling for out of 4 500 000 people 25,000 were mentally incapable. He thought that unless drunkenness could be reduced as one of the chief causes of insanity there was little hope of any diminution. He recommended that children should be brought up in absolute ignorance of the taste of alcohol until they were of age and as long as possible afterwards. An interesting discussion followed.

The Ulster Hospital for Children and Women.

A bazaar in aid of the funds of the Ulster Hospital for Children and Women was opened by the Lord Lieutenant of Ireland in Belfast on Nov. 26th. The object of the effort is to wipe out a debt of £2000 and to form an endowment fund. Mr. H. C. Craig, of Sydenham House, Belfast, has given £1000, thus practically liquidating half the debt. From the large number of people who are interested in the bazaar it is expected that a good sum of money will be raised.

Dec. 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Experimental Production of Aortic Atheroma by Repeated Injections of Adrenalin.

AT the meeting of the Biological Society which was held on Nov. 14th M. Josué read a paper upon the above subject. Atheroma is a chronic diseased condition of the economy which is generally attributed to the action of slow poisons, whether endogenous, as those due to defects of nutrition; exogenous, such as tobacco, alcohol, and lead; or infective, such as the poison of typhoid fever. Some observers have added another factor—namely, arterial hypertension, whether local or diffused. Experiments with the injection of toxic substances have been made by Crocq, Bosinet, and Remak, but these have not brought about any atheromatous lesions at a distance from the point of injection, while at that point they have never produced any calcareous plaques but only an occasional abscess. Intravenous injections, however, of adrenalin administered in small doses repeated for a long time have produced in the rabbit calcareous plaques but no actual lesion of the aorta. In rabbits which died after the first injection or even after five or six injections into the marginal vein of the ear no aortic lesion was produced. After eight injections of a very weak (*étendue*) solution spread over a period of five weeks

[1] THE LANCET, August 29th, p. 635.

the heart was found to be dilated and there was one calcareous plaque in the thoracic aorta and another lower down. In a rabbit which received 16 injections there were numerous plaques, while the heart was hypertrophied and dilated. Another rabbit which received 20 injections within a period of three months was found to have its aorta profoundly affected and the calcareous plaques were very numerous. Adrenalin, then, would appear to possess a specific action on the arteries and to be capable of bringing about a condition of atheroma, perhaps owing to its raising the arterial tension. If it be remembered that adrenalin is the secretion of the suprarenal capsules it is only reasonable to suppose that these organs may play an important part in the production of atheroma.

The Revue de Déontologie and the Corporative Association of Medical Students.

A group of medical students have withdrawn from the general association of students and have founded an association of their own called the Corporative Association of Students in Medicine. This association, the numbers of which are rapidly growing, proposes to publish a monthly journal and has founded the *Revue de Déontologie et d'Intérêts Professionels Médicaux*. The assistant editor of this journal is a student. It is to be feared that from the point of view of medical practice the editorial staff of this journal, being only students, are somewhat lacking in experience. The other medical journals are astonished to see this new review offering to give advice as regards medical practice, since the directors thereof are only at the threshold of their career.

Drinking Water for the Army.

In conformity with a resolution passed by the Senate after the question which was asked in the House relative to the sanitary state of the troops the Minister for War submitted to the Academy of Medicine a number of questions dealing with the supply of drinking water to the various garrisons. The Academy has just sent in its report which was drawn up by the medical inspector, M. Vallin, in the name of the commission. The commissioners were M. Proust, M. L. Collin, M. Brouardel, M. Ernest Besnier, M. Magnan, M. Motet, M. Chantemesse, M. Josias, M. H. Monod, M. Roux, and M. Vallin. The report states that the best measure of protection against water-borne diseases is to insure that all garrisons are supplied with pure spring water of which the source must be well protected. All chance of contamination of the water, both at its source of origin and during its course to the distributing centres, must be strictly guarded against, even if the contamination be only of a momentary nature. If these conditions are fulfilled no sterilisation of the water is necessary except as a temporary measure in the case of an accident. Filters need not be given up provided that they are kept in good order, but the report recommends a trial of sterilisation by means of heat, the sterilised water being carefully guarded against contamination occurring afterwards.

Different Letters of the Alphabet from the Point of View of Rapidity of Reading.

At the meeting of the Academy of Sciences held on Nov. 16th M. André Broca and M. Sulzer communicated a paper upon the above subject, following on some researches which they had carried out. They showed that the different letters of the alphabet are not all apprehended with the same quickness. For instance, the time taken to recognise an E is nearly one-third longer than that taken to recognise a T. They consider that the alphabet is badly designed from a physiological point of view. It should be composed of very simply designed letters such as T or L. Rapidity of reading would thus be increased and cerebral fatigue would be notably diminished. It would also be better to have the letters printed in white on a black ground than the reverse which obtains at present. The time taken to recognise a letter printed in black on a white ground was nearly ten times longer than that taken to recognise the same letter printed in white on a black ground. M. Broca and M. Sulzer had also inquired into the best forms of letters, both capitals and "lower case," and they gave examples. They had only made researches into the simple act of reading single letters and the reading of groups of letters and of complete words was still to be inquired into. In the case of words it is very probable that all the letters are not separately analysed by the reader.

The Syndicate of Medical Men of the Seine and the Tramway Company.

The First Chamber of the Civil Tribunal of the Seine has just decided a case in which an action was brought by the Syndicate of Medical Men of the Seine against the tramway company. The complaint of the syndicate had reference to a notice posted in the depôts of the company and the action was brought to obtain the removal of this notice together with the payment of 1000 francs damages. The notice was to the following effect. "In case of serious illness or accident requiring immediate medical aid the patient, in the absence of the company's medical officer, may send for the nearest medical practitioner, but he will have to give immediate information, either verbally or in writing, to the official in charge of his depôt. After having been visited by the company's medical officer the patient will have to pay for every other visit made by an outside medical man." The syndicate maintained that this notice was at variance with the law relating to accidents to workmen, for this law entitles the injured workman not only to choose his own medical attendant but also to recover from his employer a definite proportion of his medical expenses. The workmen would therefore be deprived of a right which belongs to them and the interests of the medical profession of the Department of the Seine would be affected, for they would be deprived of a portion of their patients. The company replied, in the first place, that the syndicate was not entitled to bring the action, which, in fact, did not involve any corporate interest, because several of the medical officers of the company belonged to the syndicate, and, in the second place, that the claim was unjustifiable because the notices only referred to the operation of the company's medical service and its sick fund and did not refer to the accidents to workmen provided for by the law of 1898. The tribunal has found that the syndicate has not made out its claim and is not entitled to take action because it does not act on behalf of a purely collective interest. The syndicate has therefore been non-suited.

Dec. 1st.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Emperor's Health.

ALTHOUGH it has been announced that no further reports on the Emperor's health would be necessary an additional bulletin was issued on Nov. 25th by Professor Schmidt, Dr. Leuthold, and Dr. Ilberg. This bulletin is to the following effect. "The wound on the left vocal cord has healed since Nov. 19th. His Majesty has been advised to spare his voice till the cicatrix has become stronger. Laryngeal massage and exercises have now been commenced and we hope that His Majesty within a few weeks will be able to use his voice as before." The massage is performed by Dr. Spiess of Frankfort, Professor Schmidt's former assistant. The recent bulletin, though quite satisfactory, is not so distinctly optimistic as the former ones and obviously a convalescence of longer duration than had been anticipated will follow. His Majesty walks daily in the park at Potsdam but has not yet appeared in public. The reports as to a visit to the south of Europe are not denied by the court journals, though, of course, ample information is not given. Professor Schmidt is said to have left Berlin for Frankfort but will return within a week. The rank of Real Privy Councillor has been conferred on him by the Emperor. This rank, with which is associated the title of Excellency, is the highest distinction open to civilians and is held by only a few medical men—namely, Professor von Bergmann, Professor von Behring, and Professor von Esmarch.

German Sanatoriums in Madeira.

Sanatoriums for consumptives will be established on the island of Madeira by a German committee of which Prince Hohenlohe is the president. The committee already possesses a concession from the Portuguese Government on the condition that 20 per cent. of the patients shall be Portuguese who are to be received free of charge. A commission consisting of Professor Fränkel and Professor Pannwitz of Berlin and of Dr. Lencastre, the physician-in-ordinary of the Queen of Portugal, has lately visited Madeira. These gentlemen advised the committee to build the sanatoriums at a certain height above the sea but not actually in the mountain region as had

been proposed by some. The commission visited one of the highest peaks of the island and considered that sanatoriums situated at this height would have to be closed during the winter, whilst at a lower level they might be kept open all the year round. The sanatoriums will be constructed and managed in accordance with German ideas. In addition to the sanatoriums for consumptives the committee intends to build a vast establishment for sufferers from other chronic diseases and for convalescents where hydrotherapeutics, mechanotherapeutics, and various other systems of treatment will be a principal feature. The institution will be situated close to the beach so that visitors may have ample opportunity for sea-bathing even during the winter months. A fear has been expressed that this establishment might eventually degenerate into a kind of Monte Carlo where roulette and other forms of gambling might be indulged in, but Professor Fränkel, writing to the *Deutsche Medicinische Wochenschrift*, mentions that he is authorised to state that gambling will be strictly prohibited in the sanatoriums.

Hysterical Somnolence.

A remarkable case of hysterical somnolence is reported in the daily press. A woman, now 44 years of age, had an accident about 20 years ago by being thrown out of a carriage. She complained of severe headache and fell into a sleep, from which she only awoke after several months and was apparently then quite well. Two years afterwards, however, she again became somnolent, this second period lasting about twice as long as the first. Prominent medical men were consulted but declared the case to be obscure. She soon fell asleep again and only awoke a week ago, this period of sleep lasting about 17 years. A fire had broken out in the neighbourhood of the patient's residence and she was so much impressed by the general alarm and by the glare of the conflagration that she suddenly rose and spoke to her family. She had a full remembrance of past events. She wanted to speak to her mother, who had meanwhile died, and she recognised her friends. She was, of course, very emaciated and weak but her bodily functions are said to be quite normal. During her somnolence she was nourished by light food, soups, vegetables, and meat and the family noticed that she moved about in bed when meal times arrived. She even refused to eat if she happened to dislike what was offered her. The case must of course be regarded as one of hysteria, although hysterical somnolence of such a duration is very uncommon.

The Behring Institute.

A Behring institute, after the pattern of the Institut Pasteur at Paris, will be established by the Government. The new institute, in addition to its scientific work, will undertake the wholesale production of sera of every kind and especially of antidiphtheritic serum. The *Vossische Zeitung* rightly observes that the decision of the Government comes rather late. About ten years ago Professor Behring asked the Government for financial assistance in his very expensive studies on immunisation. This request being refused he was obliged to apply to the Höchster Farbwerke, the largest chemical manufactory in Europe, which liberally provided him with the necessary funds on the condition that they should have a monopoly of the sale of Professor Behring's serum. The prices charged were rather high and it is to be hoped that serum will become less expensive now that the Government has undertaken its production.

Nov. 30th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Convention of Railway Surgeons in New York.

THE thirteenth annual meeting of the New York State Association of Railway Surgeons was held recently at the New York Academy of Medicine. Dr. Henry Flood, president of the association, was chairman. Among the papers read was one on Car Sanitation by Dr. James A. Exton and one on the Diagnosis of Injuries of the Hip by Dr. Wisner R. Townsend. Dr. C. B. Herrick read a paper on the Diagnosis of Injuries to the Head. Dr. W. B. Coley presented a paper on Traumatism as a Factor in the Causation of Hernia and said that his experience at the Hospital for the Ruptured and Crippled had convinced him that traumatism as a cause of hernia was very rare; out of 15,000 cases he had seen at the above-mentioned institution only four had resulted from external accident. Dr. A. J. Gilbert asserted that hernia had cost the railroad companies more money than had any other form of injury and that "it is a frightful source of fraud, particularly among employés."

Yellow Fever in Mexico.

A considerable amount of alarm exists in Texas owing to the prevalence of yellow fever in Mexico. The statement was made a short time ago that the epidemic of the disease now raging in Mexico has gone beyond the control of the Mexican health authorities. The long spell of warm weather and the negligence exhibited by the lower classes of Mexicans in reporting cases of yellow fever to the health authorities has caused, it is said, the disease to be spread far and wide. The medical officer of health of the State of Texas fully appreciates the gravity of the situation and a few days ago said that he would invite General Wyman, the chief of the United States Public Health and Marine Hospital Service, together with the representatives of the health departments of Louisiana, Mississippi, and Alabama, to accompany him to Mexico in January next for the purpose of holding a conference with the Superior Board of Health of that country to decide upon a concerted plan of action which would prevent the occurrence of another epidemic of yellow fever in Mexico and the spread of the disease to Texas and to the Southern States of America next season. Efforts will be made to induce the health authorities of the districts in Mexico in which the disease is epidemic to improve the sanitary conditions therein. The authorities will be also urged to compel the ignorant and superstitious Mexicans to report all cases of yellow fever. Failure to do this has been one of the main factors in the rapid spread of the malady in Mexico during the present season.

Care of Criminal Epileptics.

The Conference of Charities and Correction of New York State is in session at Buffalo. The report of the committee on the Treatment of the Criminal by Frank W. Robertson, superintendent of the State Reformatory, Elmira, was read by Dr. E. V. Stoddard, President of the State Board of Charities. In regard to the care of criminal epileptics the report demands suitable provision for this class, "some of whom," it says, "while not by transfer or otherwise inmates of hospitals for the insane, are yet not fit cases for the prisons." The report makes the suggestion that provision for the care of the insane might be so amended as to insure the transference of those suffering from mental disorders to the Dannemora State Hospital.

Nov. 23rd.

Obituary.

GILBERT KIRKER, M.D., M.CH.R.U.I., M.R.C.S. ENG.,

FLEET SURGEON, R.N.

THE medical department of the Royal Navy, and his many friends in the medical profession, heard with profound regret of the death of Fleet-Surgeon Gilbert Kirker at Haslar on Nov. 24th. Whilst performing an operation, an excision of the hip-joint, on Nov. 14th, he cut his finger. On the following day he amputated a thigh and on the third day noticed a slight inflammation of the wounded finger. The finger was incised and all signs of local trouble quickly passed away. But on Nov. 18th he had rigors and high fever and was placed on the sick list; toxic hæmaturia followed with suppression of urine and six days later he died. Fleet-Surgeon Kirker was an Ulsterman and studied at the Belfast Academy, of which the principal was Dr. R. Bryce, uncle of the Right Hon. James Bryce, M.P., and subsequently at Queen's College, Belfast, where he matriculated in 1872. He greatly distinguished himself as a medical student and in 1876 graduated at the Royal University of Ireland as M.D. In the following year he came to England and after becoming a Member of the Royal College of Surgeons of England attached himself to the Turkish side as surgeon in the Russo-Turkish war. At the end of the operations he again returned to England and in 1879 entered the medical department of the Royal Navy. At the entry examination he obtained first place and at the end of the Netley course of instruction he carried off the Parkes prize in hygiene. He was then appointed to H.M.S. *Iris* on the Mediterranean

station and took part in the Egyptian war of 1882, for which he was awarded the Egyptian medal and the Khedive's bronze star. Later he was appointed assistant professor at Haslar where he worked with unremitting energy until he was appointed staff surgeon in 1891 when he was commissioned to H.M.S. *Phaeton* and gained the Gilbert Blane gold medal for the excellence of his professional records on board that vessel. For some time he was in charge of the Royal Naval Hospital at Esquimalt where he availed himself to the full of many opportunities for doing good work. He afterwards returned to Haslar, where at the time of his death he held the posts of instructor to surgeons on entry at the Royal Hospital and of principal medical officer to one of the surgical sections. A man of fine physique and attractive appearance. Fleet-Surgeon Kirker at school, at college, at the Royal Victoria Hospital, Belfast, where he was formerly resident, and throughout his distinguished naval career was always greatly liked, his manly character and straightforward actions making him an especial favourite. Throughout his career he took a keen interest in all hygienic and surgical work, his active brain seeking how he could "improve," for it was always his idea to get "to the bottom" of everything that he was interested in and many small inventions were the result, the most lasting being the Kirker ambulance sleigh which is now fully recognised as the most useful method of transporting the sick and wounded on board ship, having been introduced into many ships in the Royal Navy, the Japanese Navy, and others. At the British Medical Association he was well known, acting as vice-president for the Navy, Army, and Ambulance Section last year at Manchester and doing much to make it a success. His early death is a very great loss not only to his many personal friends but to the whole Naval Medical Service and it is to be regretted that his distinguished career had not placed him in a higher rank than that he held, for it is well known that his abilities were fully appreciated and that if he had been spared they would have been recognised in promoting him to the higher ranks very shortly. He married the daughter of a well-known solicitor in Dundalk, and his widow and children (two boys and two girls) will have the deepest sympathy of all the friends of their deceased relative in the great and irreparable loss which they have sustained.

WILLIAM DINGLEY, M.R.C.S. ENG., L.S.A.

WILLIAM DINGLEY of Elm Bank, Camden-road, London, who died on Nov. 17th, was born on Nov. 9th, 1828, at Sherborne, Dorset, and was educated at the well-known school of his native town. At the age of 16 years he chose the medical profession as his career in life and was articled to a surgeon in Sherborne for three years. At the end of that time, in October, 1847, he entered as a student at St. Bartholomew's Hospital when Sir William Lawrence was senior surgeon and Sir James Paget was junior assistant surgeon. After qualifying in 1850 he saw a year's practice at some iron-works in South Wales before starting in general practice. After a short sojourn in Trowbridge he came to London and entered into partnership with his cousin and later with his sons in Bloomsbury and Camden-road. Blessed with a good constitution he stood the strain of a laborious practice for 49 years without a day's illness. His midwifery practice was large and his help and advice were much sought by brother practitioners in difficult cases. He was an earnest Christian with a high standard of conduct. He was much beloved and trusted by his patients, his hatred of pretence and unswerving devotion to duty being obvious to them.

Mr. Dingley was a wide general reader, at the same time keeping himself informed on current medical literature and practice, and was treasurer of the North London Medical and Chirurgical Society, at the meetings of which body he spoke with quaint force from the experience of nearly half a century. His remains were interred at Highgate New Cemetery on Nov. 21st. He leaves a widow, two sons (both in the medical profession), and a daughter to mourn their loss. On the occasion of his funeral a large and mourning congregation assembled in the Wesleyan Church to hear the admirable address of the minister upon a life which had been so full of human service in all its relations.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. J. J. Chisolm, formerly professor of ophthalmology and otology in the University of Maryland, Baltimore.—Dr. Brun, surgeon to the hospitals of Paris.—Dr. Francesco Folinea, a Naples surgeon.—Dr. Friedrich Goll of Zürich, whose name is known in every medical school in the world in connexion with the columns of the spinal cord. He was born in Zürich in 1829. He studied under Kölliker and Virchow in Würzburg and under Claude Bernard in Paris and then settled down in practice in his native town.

Medical News.

UNIVERSITY OF OXFORD.—At the examination in Preventive Medicine and Public Health (D.P.H.) held recently the following gentlemen were successful:—

Part I.—Edward Hugh Roberts, M.R.C.S., L.R.C.P.
Parts I. and II.—John Batten Coumbe, F.R.C.S.; George Keith Gifford, M.D.; Harold John Hutchens, D.S.O., M.R.C.S., L.R.C.P.; and Thomas William Gordon Kelly, M.D.

In a Congregation held on Nov. 19th the following degrees were conferred:—

Doctor of Medicine.—John Wood, Pembroke College; and Peverell Smythe Hichens, Magdalen College.

In a Convocation held on Nov. 24th the following decree was proposed and carried *nemine contradicente*:—

That, notwithstanding anything contrary in decree (1) of Convocation of Jan. 22nd, 1901, contained, the delegates of the Common University Fund be authorised to assign to Arthur Thomson, M.A., Exeter College, as Professor and Reader of Human Anatomy, a stipend of £700 a year to be reckoned from the first day of Michaelmas Term, 1903, in lieu of the stipend of £500 a year specified in the above-mentioned decree.

UNIVERSITY OF CAMBRIDGE.—On Nov. 26th the following degrees were conferred:—

Bachelor of Medicine.—H. A. Cutler, Clare.
Bachelor of Medicine and Bachelor of Surgery.—F. Bryan, King's C. V. Bulstrode, Trinity; and W. H. Fisher, Emmanuel.

Professor Howard Marsh and Dr. D. MacAlister have been appointed members of the State Medicine Syndicate and Dr. J. Griffiths a member of the special board for medicine. Mr. F. C. Parsons has been appointed an examiner in Human Anatomy in the place of Dr. A. Birmingham who is unable to examine this term. The Graces for the appointment of a syndicate to consider what changes are desirable in the studies and examinations of the University were on Nov. 26th adopted by large majorities in the Senate. The examiners in State Medicine for the ensuing year are: Professor G. Sims Woodhead, Mr. J. E. Purvis, Dr. J. F. W. Tatham, Dr. J. Lane Notter, and Dr. R. D. Sweeting.

TRINITY COLLEGE, DUBLIN.—At the Final Examination at Michaelmas the following gentlemen passed:—

Section A.—Henry H. A. Emerson, William Nunan, William J. Powell, Cyril B. M'Comas, Cecil Scaife, and Henry B. Leech.
Surgery.—Thomas R. Gibbon, Henry Stokes, Richard C. Hallowes, Philip S. Stewart, William Boxwell, Frederick F. Willington, Cecil J. Wyatt, and Thomas J. Crean.

FOREIGN UNIVERSITY INTELLIGENCE.—*Budapest:* Dr. N. Berend has been appointed *docent* of Children's Diseases; Dr. Rathonyi-Reiss has been recognised as *privat docent* of the Biology of the Central Nervous System.—*Göttingen:* Dr. Hans Reichenbach has been appointed to the chair of Hygiene.—*Liége:* Dr. Henrijean has been promoted to the Ordinary Professorship of Pharmacology and Therapeutics and Dr. Troisfontaines to the Ordinary Professorship of Dermatology.—*Marburg:* Dr. Erich Opitz of Berlin has been appointed Extraordinary Professor of Gynæcology.—*Pavia:* Dr. Ercole Pusateri has been recognised as *privat-docent* of Psychiatry and Dr. Tommaso Busacchi as *privat-docent* of Surgery.—*Prague (Bohemian University):* Dr. Alois Velich has been appointed Extraordinary Professor of General and Experimental Pathology; Dr. Ottokar Frankenberger, Extraordinary Professor of Laryngology and Rhinology; and Dr. Emanuel Formánek, Extraordinary Professor of Medical Chemistry.—*Rome:* Dr. Arnaldo Pieraccini has been recognised as *privat docent* of Psychiatry.—*Utrecht:* Dr. Daniel de Niet has been recognised as *privat-docent* of Hydro-therapeutics.—*Vienna:* Dr. Julius Tandler has been promoted to an Extraordinary Professorship of Anatomy; Dr. Ferdinand Frühwald to an

Extraordinary Professorship of Pediatry; and Dr. Josef von Metnitz to an Extraordinary Professorship of Odontology.

MR J. J. UDALE, M.R.C.S. Eng., L.R.C.P. Lond., has been elected a member of the council for the metropolitan borough of Finsbury.

DONATIONS AND BEQUESTS.—Under the will of Mr. George Harwood £500 are bequeathed to the London Hospital; £500 to the treasurer of the City of London Hospital, Victoria park; £500 to the North-Eastern Hospital for Children, Hackney; and £500 to the Metropolitan Hospital, Kingsland-road.

MEDICAL CIRCULATING LIBRARY.—It may be useful to announce that Mr. H. K. Lewis, of Gower-street, London, W.C., whose old-established medical circulating library is well known to our readers, is now prepared to undertake the weekly delivery of books at subscribers' residences and to arrange for their re-collection.

A NEW METHOD OF SHARPENING KNIVES.—The *Engineer* of Nov. 27th states that a German experimenter named Bernhard has discovered that aluminium may be used for putting an edge on fine-cutting instruments such as surgical knives or razors and that it acts exactly like a razor-hone of the best quality. He found that when steel was rubbed on it the aluminium disintegrated with the formation of a powder of a somewhat greasy nature which clung to the steel with great tenacity and assisted in cutting away the hard surface of the metal.

PRESENTATIONS TO MEDICAL PRACTITIONERS.—Mr. J. Rowlands Essex, M.R.C.S. Eng., of Pontypool, Mon., medical officer of health of Panteg, who has recently resigned his appointment as surgeon to the Pontypool town forge tin and iron works, has been presented by the workmen with a marble timepiece and a smoking cabinet. Mr. Essex was for 27 years surgeon to the works with which his father was connected in the same capacity for 51 years.—Mr. William Grant, M.B., C.M. Aberd., who for nine years has been assistant surgeon to the Treherbert (Glam.) collieries, has been presented with a gold watch and chain and a purse of gold on the occasion of his leaving the district owing to ill-health.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—Dr. P. S. Abraham, the President of the Irish Medical Schools and Graduates' Association, took the chair at the autumn dinner on Nov. 25th at the Trocadéro Restaurant, Piccadilly-circus, London. Dr. Abraham, in the course of a reply to the toast of "The Association," proposed by Professor William Graham of Dublin, observed that the association had done good work. It had raised the position of Irish medical men throughout England. It had helped to show those concerned that the attempt to exclude Irish graduates and diplomates from public appointments in England was a failure. Happily at the present time but little of the former spirit of intolerance prevailed. A more liberal view was now taken and the old grievance that candidates with Irish degrees were ineligible for appointments on the honorary staff of English hospitals was being rapidly removed. This improvement was due to a great extent to the influence of the Irish Medical Schools and Graduates' Association. Another interesting matter was touched upon by Mr. J. S. Whitaker, organising secretary of the British Medical Association, who replied to the toast of "The Guests." He said it was his duty to pay visits to many parts of England, Ireland, and Scotland. When in Dublin he was told that the best investment John Bull could make was to secure the goodwill of the Irish and that had been recognised by the British Medical Association. That body had decided that assistance should be given to the Irish Poor-law dispensary doctors in their fight against the wrongs to which they were subjected. He pointed out that everyone who heard him at that dinner could be of assistance in the struggle of the Irish dispensary doctors by preventing medical men from filling up the posts vacated by them and in that manner reform would be hastened. Another subject of public concern was introduced by Surgeon-Major W. Moyle O'Connor, second in command of the Royal Army Medical Corps Militia, who, in the course of responding to the toast of "Our Defenders," proposed by Sir J. W. Moore, contended that the Royal Army Medical Corps Militia should be permanently employed in home billets. In that manner, he explained, the officers of the Royal Army Medical Corps would be available for service abroad in their full strength. This, he considered, was the only means by which officers could be encouraged to join the medical service of the Militia. The corps had been increased from 800 to 1600 men and was the largest embodied unit of that nature.

SINGULAR AND UNSUCCESSFUL CLAIM AGAINST A DENTIST.—At Gloucester county court last week a claim for damages was brought by a carpenter named Freeman against Mr Ebenezer Apperley, L.D.S. R.C.S. Eng. The plaintiff claimed £161 in circumstances which had been mentioned in a previous action in October when the jury could not agree and a new trial was decided upon. It appears that towards the end of December last the plaintiff was suffering from toothache and went to the defendant, a properly qualified dental surgeon, whose son stopped the tooth with cotton-wool steeped in a preparation of cocaine. When the plaintiff got into the street, according to the evidence, he felt giddy and on Christmas Day while eating some rice pudding the stopping came out of his tooth and he swallowed it with the pudding. After that he became very ill and the suggestion was that Mr. Apperley, jun., had put an overdose of cocaine upon the cotton-wool which formed the stopping and so had caused the illness. After hearing the evidence for the plaintiff his honour agreed with the counsel for the defendant that there was no case to answer and non-suited the plaintiff with costs.

THE OPEN-AIR TREATMENT OF PULMONARY TUBERCULOSIS.—PROPOSED SANATORIUM FOR MIDDLESEX.—Sir Ralph Littler, K.C., presided at a meeting at the Middlesex Guildhall on Nov. 27th, held for the purpose of considering the question of establishing an open-air sanatorium for Middlesex. Sir William H. Broadbent, after remarking that he would do the utmost in his power to promote the establishment of such a sanatorium, pointed out that London was the worst provided with sanatoriums of all large towns in the kingdom, while at the same time it was overwhelming in its demands for the treatment of consumptive cases. It would therefore be no advantage to Middlesex to share a sanatorium with London. On the motion of the Bishop of Kensington, seconded by Mr. Bott, it was decided that a sanatorium should be established and an executive committee was appointed for the purpose of collecting funds and of negotiating with public bodies. This committee will consist of the following gentlemen: Mr. Montagu Sharpe, Mr. Bott, Dr. Kenwood, Dr. Benjafield, Mr. J. Box, and Mr. A. W. W. King. Sir Francis Cory-Wright was appointed treasurer and Colonel Gerard Clarke was elected secretary. Lord Rothschild and Mr. Leopold de Rothschild have each promised a donation of 200 guineas towards the proposed building.

ASSOCIATION OF PHYSICIANS AND SURGEONS (SOCIETY OF APOTHECARIES).—The first meeting of the members of this society since its incorporation took place in the hall of the Society of Apothecaries in Blackfriars, in the City of London, on Tuesday, Dec. 1st. The meeting was advertised to include the Licentiates of the Apothecaries' Hall of Ireland, and the chair was taken by Mr. A. Rivers-Willson (Oxford). The following gentlemen had written wishing to join the Association of Physicians and Surgeons of the Society of Apothecaries: Mr. A. M. Sheild, Mr. C. Stonham, Mr. W. Bruce Clarke, Mr. F. J. Steward, Mr. J. A. Ryan (Glasnevin), Mr. J. Evans (Dublin), Dr. Alexis Thomson (Edinburgh), Dr. R. D. Purefoy (Dublin), and Sir Charles A. Cameron (Dublin). The meeting was attended by about 30 medical men. The proceedings commenced by the Chairman moving the following:—

That the Association of Physicians and Surgeons, Limited, having for its objects the professional advancement of the Licentiates of the Society of Apothecaries of London and of the Apothecaries' Hall in Ireland, deserves the encouragement and cordial support of all Licentiates of the Corporation.

Turning to the Master of the Society of Apothecaries who was seated near, the Chairman submitted for the consideration of the society the proposal that the Licentiates should have the title "Licentiate in Medicine, Surgery, and Midwifery." The motion was seconded by Mr. George Jackson (Plymouth), one of the Direct Representatives on the General Medical Council, who observed that a Licentiate of the Society of Apothecaries might use the title of physician and surgeon. But that right was not expressed in the letters L.S.A. What ought to have been done was that the Society of Apothecaries should have been amalgamated

with the Royal Colleges of Physicians and Surgeons. The only alternative that now remained was for the Society of Apothecaries to ask Parliament to consent to an alteration of the title. Mr. A. Mowbray Upton, clerk to the Society of Apothecaries, spoke in favour of the objects of the Association of Physicians and Surgeons of the Society. Dr. Clarence Cooper, the Master of the Society, pointed out that it had been contended by many that the Society had the power to grant the title of Fellow or any other title to anyone who had passed their examination for the Licentiateship of the Society. The usual votes of thanks concluded the business of the meeting after the motion submitted by the Chairman had been unanimously adopted.

MIDDLESEX HOSPITAL.—At a meeting of the court of governors of the Middlesex Hospital, held on Nov. 27th, a report was submitted which stated that since the last meeting the constitution of the board had been strengthened by the addition of Prince Francis of Teck and the Hon. Oliver A. Borthwick. The amount required for alterations and other current expenses had been approximately ascertained to be about £15,000, and in view of the existing depression in the stock market it was thought advisable to obtain a loan of £15,000 from the bankers. The new clinical and bacteriological laboratories had been in working order for rather more than 12 months and could already show a satisfactory record of work done. The total number of medical, surgical, and obstetrical patients treated during the past half-year was 2079 with the following results: discharged relieved, 1517; discharged unrelieved, 125; left at own request, 29; deaths, 136; remaining in the hospital on Oct. 1st, 272; total, 2079. In the out-patient department 25,692 patients were treated, the total number of attendances being 57,898, giving an average of 2·2 attendances for each patient and an average of 218 patients seen daily. The council of the Metropolitan Hospital Sunday Fund had now recognised the cancer wing as a separate institution and had this year made a grant of £325 to the funds. During the past half-year the number of admissions to the cancer wing had been 69 and the deaths 51, whilst 18 patients had discharged themselves. The number of outpatients had been 101, with a total attendance of 382.

GLASGOW UNIVERSITY CLUB, LONDON.—Sir William Taylor, K.C.B., Director-General of the Army Medical Service, presided on Nov. 26th at the half-yearly dinner of the Glasgow University Club, London, which was held at the Trocadéro Restaurant, Piccadilly-circus, London. Among those present were Sir George Hare Philipson, Sir Charles B. Ball, Sir John Batty Tuke, Surgeon-General H. Skey Muir, C.B., Dr. Guthrie Rankin, Dr. C. O. Hawthorne, and Dr. D. C. McVail. The toast of "The Imperial Forces" was proposed by Sir George Philipson who in the course of his remarks paid a high compliment to the Glasgow companies of the Royal Army Medical Corps. These companies originated in the University of Glasgow and were officered by Glasgow graduates. Surgeon-General A. H. Keogh, C.B., who was called upon to reply, observed that the Army Medical Service had started on the path of progress and reform. Before the reorganisation of the department there were three Glasgow graduates at headquarters. After the reorganisation they found that there were three more Glasgow graduates there and in that way the service was specially indebted to the University of Glasgow. Sir William Taylor next proposed the toast of "The University and the Club." He said that it was not known perhaps to everyone how the Zachary Boydleian Library became the property of the University of Glasgow. Zachary Boyd composed a poetical version of the Bible and the following was a fair example of his talents as a poet: "Was not Pharaoh a rascal." That was the first line of a couplet. The second line was "He wouldn't let the children of Israel go with their wives and families, their bags and baggage, 40 days' journey into the wilderness for to eat the Pascal." Boyd was anxious to have his book printed and published and after being refused by the Universities of Oxford and Cambridge the undertaking was accepted by the University of Glasgow. That institution fulfilled its promise by printing and publishing two copies: one was kept in the Boydleian Library and the other was presented to Zachary Boyd. After reviewing the celebrated men who had come from the University of Glasgow Sir William Taylor concluded by saying that the Glasgow University Club existed in London because it was the natural result of one of the laws of nature that wherever two or three Scotch were gathered together they stuck to each other and took counsel for the common good of the race. The other toasts were those of "The Guests" and "The Chairman." The former was effectively dealt with by Dr. Rankin and the latter was proposed in a witty speech by Mr. A. A. Jack. In addition to the entertainment afforded by the eloquence of the orators those present were treated to Scotch stories by Dr. G. Ogilvie and to Scotch songs from several talented singers.

BOOKS, ETC., RECEIVED.

AMERICAN LARYNGOLOGICAL ASSOCIATION (Dr. James E. Newcomb, Secretary, 118, West 69th-street, New York City).

Transactions of the Twenty-fifth Annual Meeting of the American Laryngological Association held at Washington, D.C., May 12th, 13th, and 14th, 1903. Price not stated.

BEMROSE AND SONS, LIMITED, 4, Snow-hill, E.C.

Poetical Daily Calendar, 1904. Proverbial Daily Calendar, 1904. Daily Calendar, 1904. Price 1s. each.

CHATTO AND WINDUS, 111, St. Martin's-lane, W.C.

The Stellar Heavens. An Introduction to the Study of the Stars and Nebulæ. By J. Ellard Gore, F.R.A.S., M.R.I.A. Price not stated.

Condensed Novels. The two series complete. By Bret Harte. Price 2s. net in cloth, 3s. net in leather.

Leonora. A Novel. By Arnold Bennett. Price 6s.

The Mistress of Bonaventure. By Harold Bindloss. Price 6s.

In Lakeland Dells and Fells. By W. T. Palmer. Price 6s.

Phil May's Sketch-book. Fifty Cartoons. Popular Edition. Price 2s. 6d.

CHURCHILL, J. AND A., 7, Great Marlborough-street, W.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. XXIII. Session 1902-03. With List of Officers, Members, &c. Price 12s. 6d. net.

CLAY, WILLIAM F., 18, Teviot-place, Edinburgh.

Manual of Midwifery. By W. E. Fothergill, M.A., B.Sc., M.D., Lecturer in Obstetrics, the Owens College. Third edition. Price 9s. net.

F. A. DAVIS COMPANY, 1914-16, Cherry-street, Philadelphia.

The Treatment of Certain Malignant Growths by Excision of the External Carotids. By Robert H. M. Dawbarn, M.D. The Samuel D. Gross Prize Essay. Price $2 net.

GARDNER, ALEXANDER, Paisley.

The Art of Being Healthy. By the Rev. Charles A. Hall, Author of "The Art of Being Happy." Price not stated.

GRIFFIN, CHARLES, AND COMPANY, Limited, Exeter-street, Strand, W.C.

Year-book of the Scientific and Learned Societies of Great Britain and Ireland: a Record of the Work Done in Science, Literature, and Art during the Session 1902-1903 by numerous Societies and Government Institutions. Compiled from Official Sources. Twentieth Annual Issue. Price not stated.

HIRSCHWALD, AUGUST, Unter den Linden, 68, Berlin, N.W.

Sammlung Klinischer Abhandlungen über Pathologie und Therapie der Stoffwechsel-und Ernährungsstörungen. Herausgegeben von Prof. Dr. Carl von Noorden, Oberarzt des Städtischen Krankenhauses in Frankfurt a. M. 4. Heft. Ueber diabetische und Nichtdiabetische Auto-intoxicationen mit Säuren (Acidosis). Von Dr. L. Mohr. Price M.1.20.

J. B. LIPPINCOTT COMPANY, Philadelphia and London.

A Narrative of Medicine in America. By James Gregory Mumford, M.D., Assistant Visiting Surgeon to the Massachusetts General Hospital and Instructor in Surgery in the Harvard Medical School. Price not stated.

JOHNSON, R. BRIMLEY, 4, Adam-street, Adelphi, W.C.

Mrs. Piper and the Society for Psychical Research. Translated and slightly abridged from the French of M. Sage by Noralie Robertson. With a Preface by Sir Oliver Lodge. Price 3s. 6d. net.

KARGER, S., Karlstrasse, 15, Berlin.

Ueber die Prognose der Syphilis. Vier Vorlesungen gehalten in den Aerztlichen Fortbildungskursen zu Aachen 1902-1903. Von Dr. G. Mayer, Geh. Sanitätsrat. Price M.2.

Die Ersten Zeichen der Nervosität des Kindesalters. Von Prof. H. Oppenheim in Berlin. Price 80 Pf.

Die Funktionsprüfung des Auges und ihre Verwertung für die Allgemeine Diagnostik. Von Prof. Dr. O. Schwarz in Leipzig. Price M.7.

Ueber das Syphilom des Ciliarkörpers. Eine Anatomisch-klinische Studie. Von Professor Dr Th. v. Ewetzky. Price M.3.50.

Operationen am Ohr. Die Operationen bei Mittelohreiterungen und ihren intrakraniellen Complicationen. Von Dr. B. Heine, I. Assistenten der Kgl. Universitäts-Ohrenklinik und Privat-Docenten an der Universität Berlin. Price M.6.

Pathologie und Therapie der Rachitis. Von Dr. Wilhelm Stoeltzner, I. Assistenten an der Kinder-Poliklinik der Kgl. Charité und Privat-Docenten an der Universität zu Berlin. Price M.4.

KEGAN PAUL, TRENCH, TRÜBNER, AND CO., LIMITED, Dryden House, Gerrard-street, W.

A Scheme of Brain Storage. With some New Theories Connected with the Environment. By Frederick R. Farmer, M.R.C.S., L.R.C.P., formerly Assistant Medical Officer, Fisherton House, Salisbury, and Wilts County Asylums. Price 2s. net.

LONGMANS, GREEN, AND CO., 39, Paternoster-row, E.C.

The Practical Study of Malaria and other Blood Parasites. By J. W. W. Stephens, M.D.Cantab., D.P.H., Walter Myers Lecturer in Tropical Medicine, University of Liverpool, and S. R. Christophers, M.B.Vict., I.M.S., Members of the Royal Society's Commission on Malaria in Africa and India, 1898-1902. Price 10s. net.

Transactions of the Clinical Society of London. Vol. XXXVI. Price not stated.

The Prevention of Consumption. By Alfred Hillier, M.D., C.M., B.A., Secretary to the National Association for the Prevention o Consumption (London). Revised by Professor R. Koch. Price 5s. net.

MACMILLAN AND CO., LIMITED, London.

A Manual of Medicine. Edited by W. H. Allchin, M.D. Lond., F.R.C.P., F.R.S.Edin., Senior Physician and Lecturer on Clinical Medicine, Westminster Hospital. Vol. V., Diseases of the Digestive System, Liver, Peritoneum, Vessels of the Abdomen, Kidneys, and Ductless Glands. Price 10s. net.

REDMAN, LIMITED, 129, Shaftesbury-avenue, W.C.

Anæsthesia in Dental Surgery. By Thomas D. Luke, M.B., F.R.C.S.E., Anæsthetist to the Dental Hospital, the Deaconess Hospital, and Instructor in Anæsthetics to the University Surgical Classes, Royal Infirmary, Edinburgh. Price 5s. net.

The Practice of Obstetrics. Designed for the Use of Students and Practitioners of Medicine. By J. Clifton Edgar, Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College; Attending Obstetrician to the New York Maternity Hospital. Price £1 10s. net.

SCIENTIFIC PRESS, LIMITED, 28 and 29, Southampton-street, W.C.

The Examination of the Urine. By J. K. Watson, M.D.Edin., C.M. Price not stated.

SHERRATT AND HUGHES, 59, Long Acre, London, W.C., and 27, St. Ann-street, Manchester.

The Purin Bodies of Food-Stuffs and the Rôle of Uric Acid in Health and Disease. By I. Walker Hall, M.D., Assistant Lecturer and Demonstrator in Pathology, the Owens College. Second edition (revised). Price 4s. 6d. net.

SIMPKIN, MARSHALL, HAMILTON, KENT AND CO., LIMITED, 4, Stationers' Hall-court, E.C.

Natural Physical Remedies. Light, Heat, Electricity and Exercise in the Treatment of Disease. By H. H. Hulbert, B.A. Oxon., M.R.C.S., L.R.C.P., &c., Lecturer on Health and Voice Production to the Guildhall School of Music and to the School Board for London. Price 2s. 6d. net.

SMITH, ELDER, AND CO., 15, Waterloo-place, S.W.

Doctors and their Work, or Medicine, Quackery, and Disease. By Robert Brudenell Carter, F.R.C.S., Knight of Justice of the Order of the Hospital of St. John of Jerusalem in England, Consulting Ophthalmic Surgeon to St. George's Hospital and to the National Hospital for the Paralysed and Epileptic. Price 6s.

STUBER, A. (C. KABITZSCH), Würzburg.

Beitrag zur Diagnose und Lehre vom Cretinismus. Unter besonderer Berücksichtigung der Differential-Diagnose. Mit anderen Formen von Zwergwuchs und Schwachsinn. Von Dr. G. P. Bayon, Assistent an der Psychiatrischen Klinik. Price not stated.

TREAT, E. B., AND CO., New York.

Clinical Treatises on the Pathology and Therapy of Disorders of Metabolism and Nutrition. By Prof. Dr. Carl von Noorden, Physician-in-Chief to the City Hospital, Frankfurt a.M. Authorised American edition, translated under the direction of Boardman Reed, M.D. Part IV. The Acid Auto-intoxications. By Prof. Carl von Noorden and Dr. Mohr. Price 50 cents.

UNIVERSITY OF LONDON, South Kensington, S.W.

The Calendar for the Year 1903-04. Vol. I. (History, Statutes, Officers, Examiners, &c.), price 3s. 6d. net. Vol. II. (Curricula, &c., for Internal Students), price 5s. net. Vol. III. (Regulations and Examination Papers, 1902-03, for External Students), price 5s. net.

WALKER, JOHN, AND CO., LIMITED, Farringdon House, Warwick-lane E.C.

Diaries for 1904. Desk: No. 8.68, French morocco, 4s. 6d. Pocket: No. 3.103, solid seal, price 4s. No. 3.85, solid pigskin, price 2s. 6d. No. 4.64, paste grain, price 2s. 6d. No. 3.53, cloth limp, price 9d. "One Day" (5 in. by 3 in.), No. 23, paste grain, price 2s. 6d. "Graphic," No. 15.315, French morocco, price 1s. No. 17.217, "Orient Long Grain," price 1s. Waistcoat pocket: No. 1.31 "Orient" limp, price 6d. No. 1.91, solid Russia, price 2s. "Quarterly" Pocket, No. 611, French morocco case, price 1s. Golfer's Diary and Match-book, together with the Rules, No. 82G, solid pigskin, price 2s. 3d.

WILSON, EFFINGHAM, Royal Exchange, E.C.

Banks and their Customers. By Henry Warren. An entirely new and enlarged edition (the seventh). Price 2s. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

ACKLAND, J. M., M.R.C.S., L.D.S.Eng., has been appointed Dental Surgeon to the Royal Devon and Exeter Hospital, Exeter.

ADAMS, J. E., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

ADENEY, G. C., L.R.C.P.Lond., M.R.C.S., has been appointed House Physician to Out-patients at St. Thomas's Hospital.

BIRKS, G. T., B.C.Cantab., has been re-appointed Clinical Assistant in the Ear Department at St. Thomas's Hospital.

BIRT, A. C., L.R.C.P.Lond., M.R.C.S., has been appointed Clinical Assistant in the Throat Department at St. Thomas's Hospital.

BUCK, JOSEPH, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., has been appointed Medical Officer to the New Workhouse and Infirmary of the Hunslet Union, Rothwell Haigh, near Leeds.

CARPMAEL, N., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

GUTHRIE, T., B.C.Cantab., has been re-appointed House Surgeon to Out-patients at St. Thomas's Hospital.

HARNETT, W. L., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Surgeon to Out-patients at St. Thomas's Hospital.

HARWOOD-YARRED, W. H., B.Sc., L.R.C.P. Lond., M.R.C.S., has been appointed Senior Obstetric House Physician at St. Thomas's Hospital.

HASLEWOOD, CLARENCE, M.B., C.M.Aberd., has been appointed Medical Officer and Public Vaccinator for the Slaidburn District of Clitheroe Union.

HIGHAM, B., L.R.C.P.Lond., M.R.C.S., has been appointed Clinical Assistant in the Skin Department at St. Thomas's Hospital.

LEACH, R. E. H., M.B., B.Ch.Oxon., has been appointed House Physician to St. Thomas's Hospital.

LUCAS, GEOFFREY, B.A.Cantab., L.S.A.Lond., has been appointed Assistant House Physician to the Westminster Hospital.

OLIVER, CHARLES PYE, M.D.Lond., has been appointed Physician to the West Kent General Hospital, Maidstone.

PANTON, P. N., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Physician to St. Thomas's Hospital.

PINCHES, R. I., M.B., B.C.Cantab., has been re-appointed House Surgeon to Out-patients at St. Thomas's Hospital.

RICKETT, G. R., B.C.Cantab., has been appointed House Physician to St. Thomas's Hospital.

RIDLEY, J. B., M.D.Edin., has been appointed Clinical Assistant to St. John's Hospital for Skin Diseases, London, and Visiting Medical Officer to the St. Olave's (London) Union Schools, Shirley, near Croydon.

ROBERTS, CHARLES, M.B., B.S.Lond., F.R.C.S.Eng., has been appointed Assistant Honorary Surgeon for Children to the Northern Hospital for Women and Children, Manchester.

ROSS, E. A., M.B., B.C.Cantab., has been appointed House Physician to Out-patients at St. Thomas's Hospital.

SEARS, C. N., M.B.Lond., has been re-appointed Clinical Assistant in the Skin Department at St. Thomas's Hospital.

SERGEANT, J. N., L.R.C.P. Lond., M.R.C.S., has been re-appointed House Physician to St. Thomas's Hospital.

SHIPWAY, F. E., M.B., B.C.Cantab., has been appointed Junior Obstetric House Physician at St. Thomas's Hospital.

UPCOTT, H., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

VAUGHAN, J. C. F. D., L.R.C.P. Lond., M.R.C.S., has been appointed Clinical Assistant in the Ear Department at St. Thomas's Hospital.

WHEEN, C., L.R.C.P.Lond., M.R.C.S., has been re-appointed House Surgeon to St. Thomas's Hospital.

WIGRAM, L. E., M.B., B.C.Cantab., has been re-appointed House Surgeon to Out-patients at St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM, EAR AND THROAT HOSPITAL.—Additional Honorary Anæsthetist.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—House Surgeon. Salary £75 per annum, with board and residence.

BOURNEMOUTH, ROYAL BOSCOMBE AND WEST HANTS HOSPITAL.—House Surgeon. Salary £80 per annum, with board, lodging, and washing.

BRIDGWATER INFIRMARY.—House Surgeon. Salary £80 a year, with board and residence.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road, W.C.—Non-resident House Surgeon. Honorarium at rate of 40 guineas a year. Also Three Registrars (Honorary).

EDINBURGH, UNIVERSITY OF.—Additional Examinerships in Materia Medica and Clinical Surgery.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Eight Clinical Assistants.

GREAT YARMOUTH, COUNTY BOROUGH OF.—Medical Officer of Health, Medical Officer of the Borough Isolation Hospital, and Port Medical Officer of Health. Salary £500 a year.

HEREFORD COUNTY AND CITY ASYLUM.—Senior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, lodging, and washing.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months. Honorarium of £25.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £100, with board and lodging.

LIVERPOOL INFECTIOUS DISEASES HOSPITALS.—Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with board, washing, and lodging.

METROPOLITAN HOSPITAL, Kingsland road, N.E.—Assistant Surgeon.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead, N.W.—Male Resident Medical Officer. Honorarium £60.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury.—Gynæcologist.

NORTHAMPTON GENERAL HOSPITAL.—Assistant House Surgeon, unmarried. Salary £75 per annum, with apartments, board, attendance, and washing.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, N.—Medical Officer for Electrical Department. Salary £50 per annum. Also Pathologist and Bacteriologist. Salary £50 per annum, with lunch.

NOTTINGHAM GENERAL HOSPITAL.—House Physician. Salary £100, rising to £120, with board, lodging, and washing.

OLDHAM INFIRMARY.—Senior House Surgeon. Salary £100 per annum, with board, residence, and washing.

QUEEN'S JUBILEE HOSPITAL, Earl's-court, S.W.—House Surgeon for six months, renewable. Salary at rate of £52 per annum, with board, residence, and washing.

ROYAL COLLEGE OF PHYSICIANS.—Milroy Lecturer for 1905.

ROYAL DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square, W.C.—Demonstrator. Honorarium £200 per annum.

ROYAL EYE HOSPITAL, Southwark, S.E.—Refraction Assistants. Honorarium £40 for the year 1904. Also Honorary Clinical Assistants.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Clinical Assistants (female).

ST. PETER'S HOSPITAL FOR STONE, &c., Henrietta-street, Covent-garden, W.C.—Junior House Surgeon for six months, renewable. Salary at rate of £50 a year, with board, lodging, and washing. Also Clinical Assistants for Out-patients for six months.

SALFORD, COUNTY BOROUGH OF.—Assistant to the Medical Officer of Health. Salary £200 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £50 per annum, with board and lodging.

UNIVERSITY OF LONDON.—Scientific Assistant in Biological Subjects. Salary £75 a year.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Medical Registrar. Salary £50 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House Physician for six months. Honorarium at rate of £75 per annum, with board, lodging, and washing.

THE Secretary of State, Home Office, S.W., gives notice of a vacancy as Medical Referee under the Workmen's Compensation Act, 1897, for Morpeth and Blyth, North Shields, Newcastle, Gateshead, Hexham, and Bellingham, in County-court Circuit No. 1.

Births, Marriages, and Deaths.

BIRTHS.

BLYTH.—On Nov. 28th, at Ettrick House, Attercliffe, Sheffield, the wife of James Blyth, M.D., of a son.

COOKE.—On Nov. 25th, at Gladstone House, Southsea, the wife of E. Hunt Cooke, M.A., M.B., B.C., of the G.I.P. Ry., Lonavla, India, of a son (John Hunt).

NUTTING.—On Nov. 26th, at Queen-street, Wolverhampton, the wife of E. S. Nutting, M.D., of a daughter.

ORME.—On Nov. 28th, at the Red House, Matlock Bridge, Marie (née Goodwin), L.R.C.P., L.R.C.S. Irel., the wife of A. L'Estrange Orme, L.R.C.P., L.R.C.S. Irel., of a son.

MARRIAGES.

DRINKWATER—JAY.—On Nov. 18th, at St. Pancras Church, London, by the Rev. W. H. Fletcher, Vicar of Wrexham and Canon of St. Asaph, Harry Drinkwater, M.D., Grosvenor Lodge, Wrexham, to Katharine R. Jay, L.S.A., B.Sc., Chippenham, Wilts.

WALKER—JACKSON.—At Morningside Parish Church, Edinburgh, on the 1st inst., by the Very Reverend John Pagan, D.D., Minister of Bothwell, and the Reverend R. H. Fisher, B.D., Minister of the Parish, Dr. Sydney Robert Walker, of the Uganda Protectorate, youngest son of J. West Walker, of Hundleby House, Spilsby, Lincolnshire, to Marion Douglas, daughter of Thomas Jackson, 7, Ettrick-road, Edinburgh.

DEATHS.

MUMBY.—On Dec. 1st, at Spring Garden Lodge, Gosport, Major Langton Philip Mumby, R.A.M.C., youngest son of the late Colonel Charles Mumby, in his 43rd year.

PRITCHARD.—On Advent Sunday, Nov. 29th, at Fairlight, Parkwood-road, Bournemouth, after a long and painful illness, Ernest James Pritchard, M.B., C.M., late of Hinckley, Leicestershire. No cards.

REILLY.—On Nov. 28th, Frederick James Reilly, M.R.C.S., L.R.C.P., J.P., of Amesbury House, Victoria Park-road, South Hackney, and Bramble Chine, Freshwater, Isle of Wight.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE CIGARETTE CRAZE.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 21st, p. 1476, I have read with much interest the letter of "Doubtful" *re* above discussion.

As I have had 23 years' consecutive experience in the tobacco trade as manufacturer and retailer the opinions of a layman may interest your readers. I have the pleasure of numbering amongst my clients several medical men, mostly cigarette smokers, and I have watched with interest how their purchases of cigarettes nearly always increase.

Perhaps two examples will point the moral:—

Dr. X. returned from South Africa a year ago and smoked about ten Virginian cigarettes daily. He now purchases and smokes 50 strong Turkish cigarettes daily. His appearance is deplorable, having all the pinched ghastly looks of an opium smoker *plus* dull reddish eyes and shaking hands.

Dr. B., a client of 18 months' standing, who formerly smoked one ounce of Virginian cigarettes daily, was highly neurotic when first visiting us and stated that cigarette smoking was ruining his health. I recommended him to try mild Borneo leaf cigars. He smokes five or six daily and is a picture of health.

Mr. J. J. Scanlan is absolutely correct in stating that some men smoke 300 cigarettes per week. I have clients smoking fully this number, perhaps more. My firm conviction regarding the insidious effect of cigarette smoking is that the cigarette does not nauseate, hence the appetite is never satisfied. Pipe smokers will agree with me that in most cases after smoking two or three consecutive pipes the "tobacco appetite" is satisfied, but never in the cigarette smoker. *En passant* I may mention that I possess a formula of blending tobacco that is exceptionally mild and absolutely cool, but refrain from giving it here as I have no wish to obtain cheap advertisement. I have smoked it for years and many clients smoke it (like myself) incessantly. A word more and I am finished. Bleaching tobacco is not uncommon but is *general*. Let your correspondent beg a few leaves of unmanufactured tobacco from a cigar factory (he cannot buy them) and dip them in a pail containing one ounce of hydrochloric acid and water (cold), say, one gallon; then lay them upright against a cellar wall over night and next morning he will see how easy it is to obtain "claro" wrappers for cigars, &c. I could pursue this subject *ad infinitum* but fear to trespass further.

I am, Sirs, yours faithfully,

Nov. 21st, 1903. C. W.

To the Editors of THE LANCET.

SIRS,—In reply to the letter of "Doubtful" in THE LANCET of Nov. 21st, I regret that I misunderstood his meaning as to what constituted an excessive number of cigarettes per diem. I did intend to suggest that coarse-cut tobacco is cooler to smoke than fine-cut, although I may be wrong in supposing it to be so. The mild tobacco to which I referred was a mixture called "Summer Flowers," made and sold by Wolff, Phillips, and Co., 119, Jermyn-street, W., to whom I cheerfully give this advertisement, if the editors of THE LANCET will allow me to do so. A tube for smoking cigarettes which is not eccentric in appearance and contains, I believe, a spiral inner tube and plug of wool which is considered to clean and to cool the smoke and is sold by Joseph Bennett, 22 and 23, Great Tower-street, E.C. This is a censorious world and I should like to say that I am not interested in either of the firms which I have mentioned. I give their names because the only way to answer "Doubtful" is to quote my personal experiences.

I am, Sirs, yours faithfully,

Dec. 2nd, 1903. E. A. A.

THE RESULT OF THE *TIMES* ENCYCLOPÆDIA BRITANNICA COMPETITION.

THE *Times* publishes in its issue of Dec. 1st the list of prize-winners in the above competition numbering 93 names. The highest prize was £1000 and the lowest was £10. 14 of the prize-winners belonged to the medical profession, one being a lady, Miss Annie T Brunyate, M.B., B.S., of London, who won £15. Dr. Thomas James Dyall, London, headed the medical list and gained £50. The following gained £15 each: Dr. D. G. Sutherland, London; Dr. R. C. Gully, Manor-park, Essex; and Dr. E. P. McLoughlin, Plaistow. The following gained £10 each: Lieutenant-Colonel W. Hill Climo, A.M.S., retired, London; Dr. W. M. D. Gallie, London; Dr. F. Villy, Keighley; Dr. F. W. Robertson, Wimbledon; Dr. W. H. M. Telling, Leeds; Mr. A. G. Hebblethwaite, Keighley; Dr. R. Cuff, Scarborough; Dr. A. Buchanan, London; and Dr. A. S. Duncan, Mavisbank, Polton. 11,080 persons entered for the competition, 5648 of whom persevered to the end. 26 out of the 93 prize-winners entered for the competition by subscribing two guineas each for a loan copy of the Encyclopædia to be used during the course. We congratulate the above members of the medical profession on the energetic manner in which they have used their leisure time, and as none of them seems to have secured a great deal of cash by the operation we hope that they are among the 26 who got the Encyclopædia on loan.

THE SOCIETY FOR THE STATE REGISTRATION OF TRAINED NURSES.

IN accordance with a resolution passed at the annual meeting of the Society for the State Registration of Trained Nurses last May, a special general meeting of the society was held at 20, Hanover-square, London, W., on Saturday last to consider the draft Nurses' Registration Bill, prepared for discussion by the executive committee. In the unavoidable absence through indisposition of the President, Miss Louisa Stevenson of Edinburgh, the chair was taken by Miss Isla Stewart, matron of St. Bartholomew's Hospital. After full discussion of each clause the draft Bill with two alterations was adopted as the Bill of the society. It will now be submitted to leading medical societies, nurse-training school authorities, and nursing organisations, inviting their consideration and support and it is hoped to introduce the Bill into the House of Commons next session.

THE ALIEN IN NEW YORK CITY.

ACCORDING to the *New York Daily Times* it is gathered from the census of 1900 that of the 1,007,670 males in New York city 21 years of age or over there are 195,866 natives of native parentage; 264,579 natives of foreign parentage; 300,660 foreign-born naturalised; and 246,565 foreign-born not fully naturalised. Roughly, this gives only one-fifth of the total as natives of native parentage. The number of natives of native parentage and of foreign parentage taken together is 460,445 out of the 1,007,670, or about 40 per cent. The total number of aliens and of citizens born of foreign parents is 811,804, and these are divided among the different countries of origin as follows: Germany, 252,182; Ireland, 220,662; Italy, 64,672; Russia, 60,808; England, 44,837; Austria, 29,099; Scotland, 14,645; Sweden, 12,742; Hungary, 11,758; France, 8953; Canada, 6788; Bohemia, 6576; Norway, 5707; and other countries 72,377, making a total of 811,804.

THE SONS OF THE CONQUEROR.

To the Editors of THE LANCET.

SIRS,—In the abstract of an address on the Dawn and Rise of Physiology in THE LANCET of Nov. 21st, p. 1418, Dr. William Stirling describes Duke Robert as being the second son of William the Conqueror. This is not correct. The Conqueror had four sons in the following order: Robert, Richard, William, and Henry.

I am, Sirs, yours faithfully,

Wimpole-street, W., Nov. 25th, 1903. F. DE HAVILLAND HALL.

NARCOSIS IN JAVA.

DR. STEINER of Sinabaya, Java, draws attention to a Javanese method of inducing narcosis which in his opinion is not devoid of merit. It consists in digital compression of the internal carotid artery against the vertebral column and is said to produce complete anæsthesia without any danger to life. Dr. Steiner has practised the method himself and succeeded in laying open a suppurating bubo without the patient experiencing the slightest pain. That the effect was not due to suggestion was evident from the fact that when the pressure was applied alongside the artery there was no narcosis. According to Dr. Steiner the narcosis is due to two chief causes: first, anæmia of the brain owing to the diminished arterial supply; and secondly, retardation of the venous blood from the inclusion under pressure of the jugular vein. It is also possible, he thinks, that the interference with the pneumogastric and sympathetic nerves may have something to do with the loss of sensation. In conclusion, Dr. Steiner maintains that in spite of chloroform, ether, and cocaine there is room in the practice of surgery for "Javanese narcosis." The method is not new, but has not been employed owing to the danger which may arise through pressure on the vagus.

AN OLD DIFFICULTY.

To the Editors of THE LANCET.

SIRS,—Might I ask you what is the right thing for a house surgeon to a general hospital, where there is no provision made for the reception and treatment of infectious fevers, to do in the following circumstances. A patient, aged 25 years, comes to the casualty room and is found to be suffering from well-marked scarlet fever. There is a hospital in the district for infectious fevers under the control of the medical officer of health for the district and supported by the rates.

I am, Sirs, yours faithfully,

Dec. 1st, 1903. SCARLET.

**** The medical officer of health should be at once communicated with. If the hospital has accommodation where the patient can be temporarily housed and isolated it would be well to detain him until the medical officer of health has arranged for his reception.—ED. L.

BACKACHE PILLS.

M.R.C.S. writes:—"On three occasions within the last few months I have seen a decided rash produced by taking a very much advertised 'backache pill.' Each of the patients came to me with a vivid red rash resembling scarlet fever and in one case it was accompanied with a temperature of 100° F. and only on questioning the patient could any idea be obtained of the cause. They all admitted taking the pills above mentioned and on discontinuing them the rash rapidly disappeared and no peeling followed."

Cardiff inquires of any of our readers the address of the Pumice Filter Pipe Company. He also wishes to know "whether the practice of hypnotism could be learnt from books and the name of a good English work on the subject, and also of any English doctor who teaches the subject by correspondence or otherwise." The attempts to teach hypnotism by books and through correspondence form a large and lucrative branch of American quackery. Our correspondent had better desist from his aspirations lest he be tempted to waste his money upon mischievous charlatans. There are medical works upon hypnotism which he can read if he has the necessary scientific training and the titles of these might be obtained by consulting his medical man. These books do not, of course, "teach hypnotism," for this is impossible and will not be comprehensible to anyone who has not read cognate works intelligently.

Query.—All four questions are answered by the statement that a duly registered medical practitioner is now registered as a physician and as a surgeon. He can practise either or both branches of his profession. The fact that his place on the Register was obtained when only one diploma was necessary for qualification makes no difference. It is open for bodies having appointments in their gift to stipulate that candidates should possess particular qualifications or combinations of qualifications, but that is a different matter.

Doubtful.—It is not possible to answer the question definitely without having the exact figures before us. But if we suppose the resident patient to pay £300 per annum, then £150 per annum at least is represented by his food, his lodgings, and the extra service required for his reception, the remaining £150 being earned by the medical man for professional service. We suggest that the return should be made on these lines.

Ethics.—There are no published rules, but if the conduct of the Member or Licentiate is reported to the authorities of the particular corporation they will act as they think necessary.

A. R.—We do not see why any serious change should be brought about in the milk by the manipulation described. The practice pointed out is, of course, to be deprecated.

Ship's Surgeon should apply to the offices of the different companies for information as to procedure. Some posts are much more difficult to obtain than others.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (7th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (8th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.).

WEDNESDAY (9th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

THURSDAY (10th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY (12th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (8th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Papers: Prof. E. A. Schäfer: Description of a Simple and Efficient Method of Performing Artificial Respiration on the Human Subject especially in Cases of Drowning; to which are appended Instructions for the Treatment of the Apparently Drowned. (Being Supplementary to the Report of the Committee on Suspended Animation in the Drowned.)—Dr. H. E. Symes Thompson: Hypertrophic Pulmonary Osteo-Arthropathy (illustrated by the epidiascope).

WEDNESDAY (9th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Discussion on Hypermetropia in Relation to Squint (opened by Dr. J. M. Kttles).

DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common).—8.45 P.M. Clinical Evening.

THURSDAY (10th).—CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Lecture:—Dr. G. F. Still: Moral Defects in Children.

NORTH-EAST LONDON CLINICAL SOCIETY (Tottenham Hospital, N.).—4 P.M. Discussion on the Use and Abuse of Pessaries (opened by Dr. A. E. Giles).

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Clinical Evening. Cases will be shown by Mr. N. C. Ridley, Mr. R. M. Gunn, Mr. Wm. Anderson, and Mr. W. T. H. Spicer.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—5.30 P.M. Papers:—Dr. C. Watson (Edinburgh): Observations on the Pathogenesis of Gout (illustrated by lantern slides).—Dr. Solly (Harrogate): Tangier (illustrated by lantern slides).

FRIDAY (11th).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—8.30 P.M. Paper:—Dr. L. Sambon: Sleeping Sickness.

CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. A. E. Maylard: Congenital Narrowness of the Pyloric Orifice a Cause of Chronic Gastric Disease in the Adult (illustrated by seven cases successfully treated by operation).—Mr. B. G. A. Moynihan: 100 Cases of Gastro-enterostomy for Simple Ulcer of the Stomach and Duodenum.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN (11, Chandos-street, W.).—5.30 P.M. Cases will be shown and the Resolutions concerning the Urban Hospital Treatment of External Tuberculosis will come up for confirmation.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (7th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. Whitfield: Clinique. (Skin.) 5.15 P.M. Dr. C. O. Hawthorne: The Clinical Anatomy and Physiology of the Nervous System.

TUESDAY (8th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Bidwell: Chronic Pancreatitis. (First Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. C. T. Williams: Clinique. (Medical.) 5.15 P.M. Dr. C. T. Williams: Life Insurance.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Sir Victor Horsley: Surgery of the Nervous System.

GLASGOW OPHTHALMIC INSTITUTION (126, West Regent-street).—8 P.M. Demonstration of Ophthalmoscopic Cases, Stereoscopic and other Photographs, Pathological Specimens, and Microscopic Slides. Clinical Evening:—Abnormal Conditions of the Pupil. (Post-Graduate Course.)

WEDNESDAY (9th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Beddard: Practical Medicine.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. H. W. Roughton: Clinique. (Surgical.) 5.15 P.M. Dr. F. W. Mott: Tremor.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Horton-Smith: Intra-thoracic New Growths.

THURSDAY (10th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Edwards: Rectal Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Dr. R. G. Little: Tuberculous Diseases of the Skin.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Mr. Handley: Leucorrhœa.

CHARING CROSS HOSPITAL.—4 P.M. Dr. Bosanquet: Demonstration of Medical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Lane: Cleft Palate.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (7, Fitzroy-square, W.).—5 P.M. Mr. J. Berry: The Surgical Treatment of Cavities in the Lung (illustrated by museum preparations). (Post-Graduate Course.)

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Mr. H. W. Carson: Nasal Obstruction.

FRIDAY (11th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. J. Reece: Ankylostomiasis (illustrated by specimens and lantern slides).

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. D. Grant: Clinique. (Ear.) 5.15 P.M. Mr. M. Gunn: Optic Neuritis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Batten: Pathology of Anterior Poliomyelitis and Diphtheritic Paralysis (lantern demonstration).

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 3rd, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Nov. 27	29·81	S.W.	0·03	53	52	41	46	47	Overcast
,, 28	29·09	N.W.	0·04	54	49	43	44	45	Raining
,, 29	29·12	N.	0·03	49	41	41	40	41	Overcast
,, 30	29·32	N.E.	0·36	41	39	35	34	35	Overcast
Dec. 1	29·47	N.	...	46	39	33	33	34	Overcast
,, 2	29·93	N.	...	51	40	32	31	33	Overcast
,, 3	30·01	S.	...	50	45	31	34	36	Foggy

During the week marked copies of the following newspapers have been received: *Portsmouth Evening News, Hertfordshire Mercury, Durham County Advertiser, Burnley and District Times, Staffordshire Sentinel, Westminster Gazette, Windsor and Eton Express, Standard, Manchester Guardian, City Press, Mid-Sussex Times, Guernsey Evening Press Lincolnshire Echo Yorkshire Post, Lincolnshire Chronicle, Dewsbury Reporter, Walsall Advertiser, Birmingham Daily Mail, Yorkshire Mercury, Herts Advertiser, Reading Mercury, Mining Journal, Midland Medical Journal, Surrey Advertiser,* &c.

Communications, Letters, &c., have been received from—

A.—Mr. J. Astier, Asnières, France; Anatomical Society of Great Britain and Ireland, Lond., Hon. Secretary of; Messrs. Ayrton, Saunders, and Kemp, Liverpool.

B.—Mr. C. Birchall, Liverpool; Messrs. C. Beaumont and Co., Lond.; Sir James Blyth, Lond.; Battersea, Town Clerk of; Dr. Giuseppe Bellei, Bologna; Dr. Judson Bury, Manchester; Mr. E. Baker, Birmingham; Mr. A. A. Bradburne, Glasgow; Miss E. H. Bolton, Southport; Mr. H. Butterfield, Northampton; T. B. Browne, Ltd., Lond.; Mr. C. L. Bedford, Lond.; Mr. C. Stanser Bowker, Newport; Dr. Hubert Biss, Eastbourne; Dr. G. Granville Bantock, Lond.; Staff-Surgeon P. W. Bassett-Smith, R.N., Haslar; *British Medical Journal*, Editor of; Dr. Bannatyne, Bath.

C.—Cortland Wagon Co., Lond.; Messrs. Cassell and Co., Lond.; Messrs. A. H. Cox and Co., Brighton; Capsuloid Co., Lond.; Messrs. T. Cook and Son, Lond.; Dr. E. F. Cyriax, Edinburgh; Cheltine Foods, Ltd., Cheltenham; Mr. L. Cooke, Wigan; Clerical, Medical, and General Life Assurance Society, Lond.; Dr. Chalmers, Bombay; C. H. M.; Mr. E. G. Clayton, Lond.

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G.—Dr. A. S. Grunbaum, Liverpool; Messrs. Gale and Co., Lond.; Mr. John Greenhalgh, Atherton; Messrs. G. Gale and Sons, Birmingham; Mr. R. J. Godlee, Lond.; General Medical Council, Pharmacopœia Committee of.

H.—Dr. F. W. Hewitt, Lond.; Messrs. Hartmann, Hohmann, and Co., Manchester; Mr. Ernest C. Hadley, Stafford; Mr. Albert E. Hookam, Worthing; Professor Halliburton, Lond.; Mr. B. F. Hickman, Lond.; Professor Hewlett, Lond.

J.—Mr. R. Jones, Belfast; Dr. T. Battersby Jobson, Ilford; Jeyes' Sanitary Compounds Co., Lond.; Mr. F. B. Jefferiss, Chatham.

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